RASA JALA NIDHI

OR

Ocean of Indian Chemistry & Alchemy.

KAVIRAJ BHUDEB MOOKERJI

RASA-JALA-NIDHI
Ocean of Indian Chemistry & Alchemy.
BHUDEB MOOKERJI

ABOUT THE BOOK :

of the four different systems of medical science, cultivated in ancient India, the system of Rasa is of hoary antiquity. It is of divine origin. The second and third, namely the systems of herbs and charms are held of human origin. The fourth viz. the system of surgical operation is thought to be non-Aryan and later in date But while the system of herbs and surgery have made trimandus advances, that of Rasa remaind unpopular even in the land of its birth.

The book is most systematic and comprehanssive treatise on the almost lost, abstruse science of Hindu chemistry (Rasa-Vidhya) It belongs to the catagory of material sciences the science of medicine which even in its degraded condition can claim superiority to all other systems of medicine known to the modern world.

The book consist of five volumes bound separatly. It contains text in Sanskrit verses followed by lucid and simple translation into English.

Vol. I. It is devided into seven chapters.

Chp. I. Opens with the construction of Rasa-Sala (Laboratory), and Rasa-Linga (a phillie image of Siva, made of pure gold.) The construction consecration of of Rasa-raja (mercury), and Rasa-mahisi in the Rasa Sala indicate the copulation of Siva and Sakti mercury and sulphur being symbolic of semon and blood.

Cho 2 describe the imitation of a desciple, Tantric rituals with Kama-bija-mantra, worship of yoni and linga deniting thereby that the process of chemical operation described in this text has its source in the Tantra-Vidya.

Contd.

Chp. 3-7 that follow deal with ways of operating, purifying, dyeing, controlling and solidifyeing mercury and its varios applications for desease.

Vol. II. consists of four chaps. These deal with Mica, Sulphur, shell and gold-silver-copper and their operation, purification and application etc.

Vol. III. consists of 11 chps, which deal with iron, sink, brass, gems, alkalis, salts, poisions, semipoison, oils, alcoholic liquides, copper laid and other metals.

Vol IV. has six chps on general health. These prescribe diet, dress, bath, directions for taking medicines, chmeical for diarrhoea, indigeston, piles, liver, spleen etc., etc.

Vol V. deals with Halmeptoses, Tuberci-oses, Cough, Asthma, Hiccough, heart diseases, Colic, Tumer, Worms, Bacelli, Jaundice, Swoon, Epilepsy, Insanity, Rheumatims, Gout, and other diseases.

The book fulfils four aims of life. It relieves people of their physical suffering by the shortest and surest process of chemicals metallurgy. It enriches them by instructing how to transform base metal to the gold. It prescribes chemicals for turning the old into youth. By the analogy of the Tantric ritual the book leads the aspirants to their gole of perfection.

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By

BHUDEV MOOKERJI

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PREFACE.

The publication of the present volume has well-nigh brought to close that part of the Rasa-Vidya (or the science of the minerals in all their aspects, viz., medicinal, alchemical, and industrial) which should be considered to be an introduction to the study of a pharmacopœa of drugs prepared mainly from minerals—a pharmacopœa of a colossal magnitude, prepared, in pre-historic times, by the ancient Indians. Much of the materials, originally intended to be dealt with in the first three volumes, are left out for treatment in a subsequent volume. The fourth and a few of the succeeding volumes would be mainly devoted to the study of recipes most of whom would be found to be astonishingly infallible.

It is not possible for me to make my readers realise the nature of the labour which I, a busy medical practitioner, have been undergoing in carrying on a prolonged research on a highly abstruse and almost forgotten science, without any assistance, financial or otherwise, either from the state or from any body else.

The sympathy with which the lovers of culture all over the world have been viewing the present publication has been the main force which has hitherto enabled me to sustain my energy and to hope for a completion of the work put in hand.

It is gratifying to note that my works are already

being studied by almost all the eminent Ayurvedic physicians all over India, but the majority of the students of Ayurveda in the colleges have not yet had an opportunity to acquaint themselves with the contents of these books (which cover the greater and the better part of Ayurveda) much of which was hitherto unknown to the world. I know that there is a paucity of teachers who can efficiently teach this the most important branch of Ayurvedic studies, but I am confident that a gradual spread of the knowledge contained in the present publication will go a great way in removing this paucity at a near future.

I am thankful to Prof. Berthold Laufer of the Field Museum of National History, Chikago, and some other scholars for their suggestion to adopt the commonly accepted practice of transliteration of Sanskrit names into Roman characters. I have decided to act up to their suggestion from Vol. IV, which has already been sent to the press.

There are scholars who are more interested in the history of a science than in the science itself. For the satisfaction of such scholars, I have dealt briefly with the history of Hindu chemistry in a chapter in my newly published work, entitled "Indian Civilization and its Antiquity" (Price Rs. 2-India).

I cannot conclude the present volume without a reference to the encouragement which I have received from men of eminence connected with the spread of Ayurvedic education in this country, and especially from the Hon'ble Mr. Justice Manmatha Nath Mookerji of the Calcutta High Court (President,

Astanga Ayurved College, Calcutta) and from the late Mr. Justice Gokarna Nath Misra of Lucknow.

I am also thankful to Mr. H. E. Stapleton, M.A., I.E.S., Director of Public Instruction, Bengal, for his kindly taking an interest in my publications.

I am much obliged to Professors Satkari Mookerji, M.A., and Kshitish Chandra Chatterji, M.A., (both belonging to the Department of Post Graduate classes in Sanskrit, Calcutta University) for the help they have ungrudgingly rendered to me in correcting the proof sheets and for several suggestions received from them.

The keenness of interest with which the publication of the present volume has all along been watched by Kaviraj Jatindranath Ghosal Kaviratna, Kaviraj Birindra Mohun Chand Ray B.A., Sj. Debi Charan Ghosal, and some other pupils of mine needs a special mention.

41-A, Grey Street,
Calcutta.
The 27th December, 1929. — BHUDEB MOOKERJI.

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ERRATA.

Page 11, line 2, for "ala" read "Kala".

" 74, line 7, for "iron" read gurh (molasses).

" 104, insert "Purification of vanga" after the first line.

" 220, after Maha-nila insert, "for Properties of sapphire, see page 253".

Page 330, line 9, for VII, read VIII.

रसजलनिधिः ।

(तृतीयखण्डम्)

मुखोपाध्यायोपाधिकेन

सिद्धवैद्यश्रीभूदेवदेवशर्म्मणा रसाचार्य्येण

एम. ए. इत्युपनामधारिणा

विरचितः ।

कल्यब्दः ५०३०

४१।ए, ग्रेस्ट्रीट् इत्याख्यया सूचिते वासस्थले कलिकातानगर्य्यां ग्रन्थकारेण प्रकाशितोऽयं ग्रन्थः ।

तेनैव सर्वसत्वमस्य संरक्षितम् ।

मूल्यं रौप्यमुद्राषट्कम् ।

सूचीपत्रम् ।

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२२० पृष्ठे ९ पंक्तेः परं २५२ पृष्ठे लिखितं नीलमणेर्गुणाः इति संनिवेश्यम् ।

रसजलनिधिः ।

तृतीयखण्डम् ।

मङ्गलाचरणम् ।

(१)

रुद्रांकस्थे तव चरणे मे
काम्ये नित्यं मयि चिरतुष्टे ।
लीलाशीले तव शुभतेजो ॥
भातु प्रीते निखिलवरेण्ये ॥

(२)

बाधाधारा सति तुदते मां
बध्नातीशे मम चिरकांक्षाम् ।
पृथ्वीकारास्थितसुतशीर्षे ।
आशीर्धारा तव विनिषिञ्च ॥

(३)

विश्वे विश्वे ऋषिकुलवाणी
प्रोद्गीतास्तु श्रवणपिपासा ।
धीराणां शाम्यतु तव कार्य्यं
कर्त्तुं मह्यं प्रवितर शक्तिम् ॥

विषयः	पृष्ठम् ।
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शुद्धिपत्रम् ।

अशुद्धपाठः	शुद्धपाठः	पृष्ठम्	पंक्तिः
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रसजलनिधिः ।

तृतीयखण्डम् ।

मङ्गलाचरणम् ।

(१)

रुद्रांकस्थे तव चरणे मे
काम्ये नित्यं मयि चिरतुष्टे ।
लीलाशीले तव शुभतेजो ॥
भातु प्रीते निखिलवरेण्ये ॥

(२)

बाधाधारा सति तुदते मां
बध्नातीशे मम चिरकांक्षाम् ।
पृथ्वीकारास्थितसुतशीर्षे ।
आशीर्धारा तव विनिषिञ्च ॥

(३)

विश्वे विश्वे ऋषिकुलवाणी
प्रोद्गीतास्तु श्रवणपिपासा ।
धीराणां शाम्यतु तव कार्य्यं
कर्त्तुं मह्यं प्रवितर शक्तिम् ॥

(४)

जीवानां त्वं भवलयदात्री
देवानां त्वं चिरशरणं हि ।
मायातीते मम हृदि तिष्ठ
काम्यं नातस्त्रिभुवनधात्रि ॥

प्रथमोऽध्यायः ।

अथ लौहम् ।

अस्य नामानि ।

लौहोऽस्त्री शस्त्रकं तीक्ष्णं पिण्डमयः कालायसम् ।
कृषिलोहं शिलात्मजमायसञ्चापि कथ्यते ॥

अस्य गुणाः ।

(१)

मधुरं तुवरं तिक्तं लौहं शीतं सरं गुरु ।
रुक्षं वयस्यं चक्षुस्यं लेखनं वातलं हि तत् ॥
कफं पित्तं गरं शूलं शोथार्शःप्लीहपाण्डुताः ।
मेदोमेहक्रिमीन् हन्ति सेवनात् तद् यथाविधि ॥

(२)

आयुः प्रदाता बलवीर्यकर्त्ता रोगापहर्त्ता मदनस्यधाता ।
अयःसमानं नहि किञ्चिदस्ति रसायनं श्रेष्ठतमं
नराणाम् ॥

Chapter I.

LAUHA (IRON).

Properties of lauha.

(1)

Iron is sweet, astringent, and bitter in taste; cold; laxative; heavy; coarse; preventer of senile-decay; improver of eye-sight; reducer of fat; and increaser of a little of vayu (wind) in the system. It pacifies an excess of kapha (phlegm) and pittam (animal heat); and cures toxin, colic, swelling of the body, piles, spleen, anemæa, obesity, spermatorrhœa and worms.

(2)

Iron increases strength and longevity. It cures diseases and is an aphrodisiac. It is one of the best remedies for senility.

लौहस्य स्वाभाविकदोषाः ।

गुरुता दृढ़ता क्लेदः कश्मलं दाहकारिता ।
अश्मदोषो मलग्रहो दोषाः सप्तायसस्य तु ॥
शोधितव्यमतस्तद्धि मारणीयं यथाविधि ।
अशोधितममारितं लौहं ज्ञेयं महाविषम् ॥

Natural blemishes of iron.

The following are the seven blemishes of iron :—heaviness, hardness, mixture with foreign matters,

power of causing hysteria, power of causing inflammation, evil characteristics of stone, and power of causing constipation.

दुष्टलौहसेवनस्य फलम् ।

षण्डत्वकुष्ठामयमृत्युदं भवेद् हृद्रोगशूलौ
कुरुतेऽश्मरीञ्च ।
नानारुजानाञ्च तथा प्रकोपं करोति हृल्लास
मवैधलौहम् ॥

Evil effects of taking impure iron.

Iron, not properly purified and incinerated, gives rise to the following :—impotency, leprosy, death, heart disease, colic, stone disease, hiccough, and even augmentation of many of the diseases the patient has already been suffering from.

लौहस्य प्रकाराः ।

(१)

सामान्याद् द्विगुणं क्रौञ्चं कालिङ्गोऽष्टगुणःस्मृतः ।
कालिङ्गाद् दशधा भद्रं भद्राद् वज्रं सहस्रधा ॥
वज्राच्छतगुणं पाण्डि नीरवं दशभिर्गुणैः ।
तस्मात् सहस्रगुणितमयः कान्तं महागुणम् ॥*

Varieties of iron.

Iron is of the following different kinds :

* पाठोऽयं रसेन्द्रचिन्तामणेस्तथा रामराजीयादुद्धृतः ॥

(*a*) Samanya or ordinary, (*b*) Krauncha (*c*) Kalinga (*d*) Bhadra (*e*) Vajra (*f*) Pandi (*g*) Niraba, and (*h*) Kanta.

Of these, (*b*) is twice as efficacious as (*a*) ; (*c*) is eight times as efficacious as (*a*) ; (*d*) is ten times as efficacious as (*c*) ; (*e*) is thousand times as efficacious as (*d*) ; (*f*) is hundred times as efficacious as (*e*) ; (*g*) is ten times as efficacious as (*f*) ; and (*h*) is thousand times as efficacious as (*g*). *

(२)

मुण्डं तीक्ष्णं तथा कान्तं त्रिविधं लौहमुच्यते ।
मुण्डात् तीक्ष्णं ततः कान्तं प्रशस्तं ज्ञायते बुधैः ॥

* This classification was in vogue at the time of King Rama Chandra, the hero of Ramayana. The present day Indians are unable to identify these different kinds of iron. Such ancient chemists as Nityanatha, Bagbhat, etc. were also ignorant of this classification. This is due to an incredibly great decline in our knowledge of industrial chemistry since the time of the great Rama Chandra. That the ancient Indians attained a high degree of scientific knowledge is evident from the famous iron pillar of Delhi, which, according to the inscription, was erected as a monument by King Chandra who was most probably the founder of the Chandra dynasty (wrongly translated as "Lunar Dynasty") This huge pillar has been exposed, for several thousands of years, to the roughness and extreme variations of a tropical climate, but no rust has grown on its amazingly smooth and glossy surface. The same remarks apply to the cannons lying in Visnupur (Bengal) and to the iron beams used in the famous temple (now in ruins) of Konarka in Orissa.

It is a matter of wonder and great significance that the ancient Hindus were able, long, long before the birth of Christ, to forge such huge pillars and beams ; and to prepare a kind of iron the like of which modern scientists have not yet been able to produce. It is a sheer want of encouragement that accounts for the present state of deplorable forgetfulness in this direction.

(2)

Iron is of three different kinds, viz. (*a*) Munda (*b*) Tikshna, and (*c*) Kanta. The second is better than the first and the third is better than the second.

(क) मुण्डम् (पूतिलौहम्) ।

मृदु कुण्ठं कड़ारश्च त्रिविधं मुण्डमुच्यते ।
द्रुतद्रावमविस्फोटं चिक्कणं मृदु तच्छुभम् ॥
हतं यत् प्रसरेद् दुःखात् तत् कुण्ठं मध्यमं स्मृतम् ।
यद्धतं भज्यते कृष्णं हीनं स्यात्तत् कड़ारकम् ॥

(a) Munda or ordinary iron.

Munda or ordinary iron is of three different kinds, viz. mridu (soft), kuntha (obdurate), and karara (brittle).

Mridu or soft is that which melts quickly and has a smooth and glossy surface.

Kuntha or obdurate is that which can be expanded with much difficulty by hammering.

Karara or brittle iron is that which breaks easily, when hammered, and presents black surfaces when broken.

Of these three, the first is comparatively commendable, the second is of moderate efficacy, and the third is the least efficacious for medicinal purposes.

श्रेष्ठमुण्डस्य गुणाः ।

मुण्डं परं मृदुलकं कफवातशूल
मूलाममेहगदकामलपाण्डुहारि ।
गुल्मामवातजठरार्त्तिहरं प्रदीपि
शोफापहं रुधिरकृत् खलु कोष्ठशोधि ॥

Properties of excellent Munda iron.

Soft iron of superior qualities (duly incinerated) is efficacious in the following diseases :—excess of kapha (phlegm), colic due to excess of vayu (wind), piles, dysentery, spermatorrhœa, jaundice, anemia, gulma, rheumatism, diseases affecting the belly, and dropsy. It increases blood, and appetite, and purifies the stomach.

(ख) तीक्ष्णम् ।

खरं सारश्च हृन्नालं तारापट्टश्च वज्रकम् ।
काललोहाभिधानश्च षड् विधं तीक्ष्णमुच्यते ॥

(b) Tikshna iron.

There are six different kinds of tikshna iron, viz. (1) khara (2) sara, (3) hrinnala (4) tarapatta (5) bajraka and (6) kala. *

* Import of cheaper iron products from foreign countries has led to the total ruin of iron industry of an indigenous character in India. The last generation of iron smiths who were acquainted with the different kinds of iron, as described here, became totally extinct about 50 years back. The classification, as given here, has therefore nothing but a historical interest for us.

(१) खरम् ।

परुषं पोगोरोन्मुक्तं भङ्गे पारदवच्छवि ।*✻*
नमने भंगुरं यत् तत् खरलौहमुदाहृतम् ॥

(1) Khara.

Khara iron is that which is coarse, inflexible, and devoid of pogara * or carved lines on its surface. This iron, when broken into pieces, presents sectional surfaces as glazy as mercury.

(२) सारलौहम् ।

(क)

घातभङ्गुरधारं यत् सारलौहं तदीरितम् ।
पोगराभासकं पाण्डुभूमिजं सारमीरितम् ।†

(2) Sara iron (Steel ?).

(*a*)

This is a kind of tikshna iron which breaks into pieces, when hammered, and has pogara or carved lines on its surface. It is obtained from ores of yellowish colour. * *

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* पोगरमित्यलकवत् कुटिलरेखाः ।
अङ्गच्छाया च वङ्गश्च पोगरस्याभिधा त्रयम् ।
चिकुरं भङ्गुरं लोहात् पोगरं तत् परं मतम् ॥

† पाण्डुभूमिजं स्थले पाठान्तरम् पाण्ड्यभूमिजम् ।

* * According to another version, it is obtained from a province called "Pandya" (Pandra in Manbhum ?)

* Anga-chhaya and banga are the two synonyms of pogara (carved

(ख)

क्ष्माभृच्छिखराकाराण्यङ्गान्यम्लेन लेपिते ।
लौहे स्युर्यत्र सूक्ष्माणि तत् सारमभिधीयते ॥

(*b*)

Sara iron is hard. Its surfaces give rise to hard and fine figures having the appearance of mountain peaks, if smeared with some kind of amla (sour vegetable juice).

(३) हृन्नाललौहम् ।

कृष्णपाण्डुवपुश्चञ्चुबीजतुल्योरुपोगरम् ।
छेदने चातिपरुषं हृन्नालमिति कथ्यते ॥

(3) Hrinnala iron.

Hrinnala has a yellowish black colour. It has, on its surfaces, pogara of the shape of birds beaks. It presents very coarse sectional surfaces at the places where it is cut into pieces.

(४) तारापट्ट लौहम् ।

गौरीपट्टाकारं लौहं तारापट्टं विकथ्यते ।
निर्मीयते शिलापैश्च यत्नेन लौहमृत्तिकात् ॥✻
सूक्ष्मपोगरसंयुक्तं कृष्णाभं गुरु चिक्कणम् ।
वर्षाम्बुरौद्रवायुभि र्न क्षीणं जायते हि तत् ॥

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lines on the surface of some kind of steel). The best pogara is smooth, glazy, and capable of being obliterated by means of friction with a piece of metal.

* शिवलिङ्गमध्यभागस्थदीपाकारप्रदेशः गौरीपट्टमिति कथ्यते । शिलापः (शिला+पा+ड) प्रस्तरविद्यानिपुणः लौहकारः सराप् इति भाषा ।

(4) Tarapatta iron.

Tarapatta iron is obtained from iron ores by a class of smiths who are specialists in the science of ores. This iron is black, smooth, glazy, and has very fine pogara (carved lines) on its surface. This is prepared in the shape of a spoon (minus the handle). It is a kind of iron which never rusts, even if it is exposed to the sun, rains, and wind. *

(५) वज्रलौहम् ।

पोगरैर्वज्रसंकाशैः सूक्ष्मरेखैश्च सान्द्रकैः ।
निचितं श्यामलाङ्गञ्च वज्रकं तत् प्रकीर्त्तितम् ॥

(5) Bajra iron.

Bajra iron is that which has got on its surface plenty of fine and deep-seated lines—straight and carved (pogara)— of the appearance of an electric flash (bajra), and is of a glossy black colour.

(६) काललौहम् ।

नीलकृष्णप्रभं सान्द्रं मसृणं गुरु भासुरम् ।
लौहघातेऽप्यभङ्गात्मधारं कालायसं मतम् ॥

* This is most probably the iron out of which the wonderful iron pillar of Delhi, the iron beams in the ruins of konarka temple, the cannons in visnupur etc. were prepared. The art of preparing such iron is now hopelessly lost.

(6) ala or Black iron.

Kala iron is heavy and of a deep blue-black colour. Its surface is glossy, heavy, and bright. It can not be broken inte pieces by being hammered upon by means of another piece of iron.

तीक्ष्णलौहस्य गुणाः ।

(१)

रुक्षं स्यात् खरलौहकं सुमधुरं पाकेऽथ वीर्य्यें हिमं
तिक्तोष्णं कफपित्तकुष्ठजठरप्लीहामपाण्डूर्त्तिनुत् ।
सद्यः शूलयकृद्गदक्षयजरामेहामवातापहं
दीप्तं चातिरसायनं बलकरं दुर्णामदाहापहम् ॥
खरलौहात् परं सर्व्वमेकैकस्माद् गुणोत्तरम् ॥

Properties of tikshna iron.

(1)

Khara iron is coarse and warm in touch, bitter in taste, but it turns sweet, when digested in the stomach. It produces a cooling effect upon the system. It is efficacious in the following diseases :—excess of kapha and pittam, leprosy, udara-roga, enlargement of the spleen, mucus, jaundice, colic, derangement of the liver, wasting diseases, senility, spermatorrhœa, inflammation, and rheumatism. It increases strength and appetite and prevents and cures senile decay, if taken in the manner prescribed hereafter. Each of the varieties of iron named after " khara " is superior in quality to that which precedes it.

(२)

लौहं साराह्वयं हन्याद् ग्रहणीमतिसारकम् ।
अर्द्ध सर्व्वाङ्गजं वातं शूलञ्च परिणामजम् ।
छर्दिञ्च पीनसं पित्तं श्वासं कासं व्यपोहति ॥

(2)

Sara iron cures the following diseases, if taken in the prescribed way :—diarrhœa, both chronic and acute, paralysis affecting the whole or half of the body, colic felt at the time of digesting food, nausea, pinasa, diseases due to an excess of pittam, asthma, and cough.

(ग) कान्तलौहम् ।

तस्य लक्षणम् ।

(१)

पात्रे यस्मिन् प्रसरति जले तैलबिन्दुर्नलिप्तं*
गन्धं हिंगु त्यजति च तथा तिक्ततां निम्बकल्कः।**
पाके दुग्धं व्रजति शिखराकारतां नैति भूमिं
कृष्णाङ्गः स्यात् सजलचणकः कान्तलौहं तदुक्तम् ॥

(*c*) *Kanta iron (an oxide of iron having the magnetic power of attracting iron.)*

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* न लिप्तमित्यस्य स्थले प्रतप्ते इत्येतत् पाठान्तरं दृश्यते ।

** निम्बकल्कः इत्येतस्य स्थले निम्ववल्कः इत्येतत् पाठान्तरं दृश्यते ।

Its characteristics.

(1)

Kanta iron is of such a nature that a drop of oil thrown into water contained in a pot of this iron does not spread over the surface of the water ; neither does the oil stick to the inner surface of the pot. Hingu (asafœtida) kept in a pot of this iron loses its smell in course of time. Bark of nimba tree (which is very bitter in taste), pestled with water, loses its bitterness, if kept for some time in a pot of this iron. Milk, boiled in a pot of this iron, may swell up, but will not overflow the borders of the pot, and will not flow into the ground.

(२)

कान्तं मृदुतरं ताराद् रुक्षात्म तिमिराकरम् ।
स्वादुर्यतो भवेन् निम्बकल्को रात्रिनिर्वेशितः ।
पानीयं क्वथितं चास्मिन् हिंगुगन्धसमं भवेत् ॥
कान्तं तदुत्तमं यच्च रूप्येनावर्त्तितं मिलेत् ।
सर्व्वरोगहरं ह्येतत् सर्व्वकुष्ठहरं परम् ॥

(2)

Kanta iron is softer than silver. It is coarse and black in colour. Water boiled in a pot of kanta iron acquires the smell of hingu (asafœtida). Kanta iron of superior quality is generally found to be in the form of ores covered with silver. Such a kanta iron (*i.e.* kanta iron found in ores rolled in silver) can

cure all sorts of diseases, if applied in the prescribed way, including all sorts of leprosy.

(३)

यत् पात्राध्युषिते तोये तैलविन्दु र्न सर्पति ।
तारेणावर्त्तते यत् तत् कान्तलौहमिति स्मृतम् ॥*

(3)

Kanta iron is that which is found to be mixed with silver.

कान्तलौहस्य भेदाः ।

भ्रामकं चुम्बकं चैव कर्षकं द्रावकं तथा ।
एवं चतुर्विधं कान्तं रोमकान्तश्च पञ्चमम् ॥
एकद्वित्रिचतुस्पञ्च सर्व्वतोमुखमेव तत् ।
पीतं कृष्णं तथा रक्तं त्रिवर्णं स्यात् पृथक् पृथक् ॥
स्पर्शवेधि भवेत् पीतं कृष्णं श्रेष्ठं रसायने ।
रक्तवर्णं तथा वाऽपि रसबन्धे प्रशस्यते ॥
भ्रामयेल्लौहजातं तु तत् कान्तं भ्रामकं मतम् ।
चुम्बयेच्चुम्बकं कान्तं कर्षयेत् कर्षकं तथा ॥

* "कान्तलौहमिति" स्मृतम् इत्यस्य स्थले "कान्तलौहं शुभं स्मृतम्" इत्येतत् पाठान्तरं दृश्यते ।

साक्षाद् यद् द्रावयेल् लौहं तत् कान्तं द्रावकं भवेत् ।
तद् रोमकान्तं स्फुटिताद् यतो रोमोद्गमो भवेत् ॥
भ्रामकं तु कनिष्ठं स्याच् चुम्बकं मध्यमं तथा ।
उत्तमं कर्षकं चैव द्रावकम् चोत्तमोत्तमम् ॥
कनिष्ठं स्यादेकमुखं मध्यं द्वित्रिमुखं भवेत् ।
चतुस्पञ्चमुखं श्रेष्ठमुत्तमं सर्व्वतोमुखम् ॥

Varieties of kanta iron.

Kanta iron is of five different kinds, viz. bhramaka, chumbaka, karshaka, dravaka, and romakanta. They may have one, two, three, four, five or more than five mouths or points. They may be of three different colours, viz. yellow, black, and red. Of these the yellow variety (populary called the philosopher's, stone) can transform base metals by mere touch. * The black variety is commendable in medicines and the red variety in medicines as well as in the act of solidification of mercury.

Bhramaka iron is that which makes a piece of ordinary iron revolve round it. Chumbaka kanta (load stone) is that which can cling to pieces of ordinary iron. Karshaka kanta is that which can attract to it pieces of ordinary iron. Dravaka kanta is that at the touch of which ordinary iron melts (without any heat being applied). Roma-kanta is that which causes the growth of fresh hair at that part of the skin which is lightly pierced through by it.

* It is an ore found in nature and is, therefore, to be distinguished from a kind of Philosopher's stone that can be prepared (vide page 235, Vol. I).

Of these four varieties, Bhramaka is the least efficacious. Chumbaka is superior to Bhramaka. Karshaka is superior to Chumbaka, and Dravaka is the most efficacious of all these varieties.

The kanta iron which has got only one mouth (or magnetic point) is the least efficacious ; that with two or three mouths is of moderate efficacy ; and that with four or five mouths is excellent. The kanta iron which has got several mouths is the best of all.

भ्रामकादीनां विशेषगुणाः ।

भ्रामकं चुम्बकंचैव व्याधिनाशे प्रशस्यते ।
रसे रसायने चैव कर्षकं द्रावकं हितम् ॥
मदोन्मत्तगजः सूतः कान्तमंकुशमुच्यते ।
खनिगर्भाद्द् ग्रहीतव्यं तत् प्रयत्नेन धीमता ।
मारुतातपविक्षिप्तं वर्जयेन्नात्र संशयः ॥

Special features of Bhramka, etc.

Kanta iron of the name of Bhramaka and Chumbaka are commendable for use in medicines intended for cure of diseases. Karshaka and Dravaka are commendable for use in mercurial operations and in medicines intended for cure of diseases as well as for prevention and cure of senile decay. Mercury can be compared to a wild elephant, whereas kanta iron to a goad which serves to control its wildness.

Kanta iron is to be obtained direct from mines. The kanta iron which has been kept exposed to sun and air should be avoided in medicines.

कान्तलौहस्य गुणाः ।

कान्तायोऽतिरसायनोत्तरतरं स्वस्थे चिरायुःप्रदं
स्निग्धं मेहहरं त्रिदोषशमनं शूलाममूलापहम् ।
गुल्मप्लीहयकृत्क्षयामयहरं पाण्डूदरव्याधिनुत्
तिक्तोष्णं हिमवीर्य्यकं किमपरं योगेन सर्व्वार्त्तिनुत् ॥

Properties of kanta.

Kanta iron is bitter in taste, warm in touch, but produces a cooling effect in the system. It is a good rasayanam (*i.e.* a medicine which, if used in the prescribed manner, can prevent and cure diseases and senility). It imparts long life to a healthy man (who takes it regularly). It is soothing. If taken with suitable anupanam, it can cure all the diseases, especially, spermatorrhœa, colic, dysentery, excess of the three doshas, piles, fistula, gulma, enlargement of the spleen and liver, phthisis, jaundice, and udara-roga.

लौहस्य शोधनम् ।*

प्रथमोविधिः ।

पत्तलीकृतपत्रानि लौहस्याग्नौ प्रतापयेत् ।
निषिञ्चेत् तप्ततप्तानि तैले तक्रे च कांजिके ॥
गोमूत्रे च कुलत्थानां कषाये च त्रिधा त्रिधा ।
एवं लौहस्य पत्राणां विशुद्धिः संप्रजायते ॥

Purification of iron. * *

* शोधनार्थं पत्तलीकृतं लौहपत्रमेव सर्व्वदा व्यवहार्य्यम् ।

* * Iron is, first of all, to be heated and hammered into thin leaves before it is purified.

First process.

(See Second process, page 242, vol. II.)

द्वितीयोविधिः।

शशक्षतजसंमिश्रं त्रिवारं परितापितम्।
मुण्डादिसकलं लौहं सर्व्वदोषान् विमुञ्चति॥

Second process.

All sorts of iron leaves are purified (medicinally, of course), if they are heated three times and immersed each time in the blood of hare.

तृतीयोविधिः।

तप्तं क्षाराम्लसंलिप्तं शशरक्तेन वापितम्।
कान्तलौहं भवेच्छुद्धं सर्व्वदोषविवर्ज्जितम्॥

Third process.

Kanta iron is purified, if it is heated after having been smeared with ksharas and amlas, and then immersed in the blood of hare.

चतुर्थोविधिः।

क्वाथ्यमष्टगुणे तोये त्रिफला षोड़शं पलम्।
तत्क्वाथे पादशेषे तु लौहस्य पलपञ्चकम्॥
कृत्वा पत्राणि तप्तानि सप्तवारं निषेचयेत्।
एवं प्रलीयते दोषो गिरिजो लौहसम्भवः॥

Fourth process.

Sixteen palas of triphala are to be boiled with 128 palas of water until it is reduced to 32 palas. Five palas of iron leaves are to be heated seven times and immersed each time into this water. This results in the purification of the iron.

पञ्चमोविधिः।

सामुद्रलवणोपेतं तप्तं निर्व्वापितं खलु।
त्रिफलाक्वथिते नूनं गिरिदोषमयस्त्यजेत्॥

Fifth process.

Iron leaf is purified, if it is coated with a dense solution of sea salt, then heated, and cooled next by immersion into a decoction of triphala.

षष्ठसप्तमौ विधी।

चिञ्चाफलदलक्वाथादयो दोषमुदस्यति।
यद्वा फलत्रयोपेतं गोमूत्रे क्वथितं क्षणम्॥

Sixth and Seventh processes.

Iron is purified, if it is boiled with decoction of leaves or fruits of tamarind.

It may also be purified, if it is boiled for some time with decoction of triphala, prepared with cow's urine (and not water).

अष्टमोविधिः ।

द्वितीयखण्डे २४२ पृष्ठे तृतीयीविधि र्द्रष्टव्यः ।

Eighth process.

(See Process No. 3, page 242, Vol, II)

नवमोविधिः ।

लवनानि तथा क्षारौ शोभाञ्जनरसे क्षिपेत् ।
अम्लवर्गयुतेनादौ दिनं घर्मे विभावयेत् ॥
तद् द्रवैर्दोलिकायन्त्रे दिवसं पाचयेत् सुधीः ।
कान्तपाषाणशुद्धौ हि तदेव मारयेत् ततः ॥

NINTH PROCESS.

A solution is to be made of the five salts, the two ksharas, the juice of shobhanjana, and the amla-varga.* This is to be exposed to the heat of the sun for one day. Kanta iron is purified, if it is boiled for one day by means of a Dola-Jantram containing this solution.

लौहस्य मारणम् ।

सर्व्वेषां धातुकल्पानां लौहकल्पं प्रशस्यते ।
तस्मात् सर्व्वप्रयत्नेन लौहमादौ विमारयेत् ॥

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* For amla-varga see page 301, Vol I.

Details of salts and ksharas will be given later in the present volume.

नायः पचेत् पञ्चपलादर्व्वागूर्द्ध्वं त्रयोदशात् ।
आदौ मन्त्रस्ततः कर्म्म कर्त्तव्यं मन्त्र उच्यते ॥
ओं अमृतोद्भवाय स्वाहेत्यनेन लौहमारणम् ॥

ओं अमृतोद्भवोद्भवाय स्वाहा । इति मर्द्दनमन्त्रः ।
ओं अमृतोद्भवाय हं स्वाहा । ओं अमृते हुं फट् ।
ओं नमश्चण्डवज्रपानये महायक्षासनाधिपतये हुं । सुरासुर यक्षमहाविद्यावलाय स्वाहा । ओँ अमृते हुं इति बलिदानमन्त्रः ।

Incineration of Iron.

Medicines, in which iron is the leading ingredient, are better than those in which any other of the remaining metals (except mercury) forms the main ingredient. Iron is therefore to be incinerated very carefully.

Iron is not to be incinerated in quantities less than five palas and more than thirteen palas at a time. The following mantra (sacred text) is to be uttered just before the commencement of the process, leading to the incineration of iron :—

" Om amritodbhavaya Swāhā" etc.

लौहमारणस्य प्रथमोविधिः ।

सूतकाद्द्विगुणं गन्धं दत्वा कुर्य्याच्च कज्जलीम् ।
द्वयोः समं लौहचूर्णं मर्दयेत् कन्यकाद्रवैः ॥
यामयुग्मं ततःपिण्डं कृत्वा ताम्रस्य पात्रके ।
घर्मे धृत्वा रुवूकस्य पत्रैराच्छादयेद्द बुधः ॥

यामद्वयाद् भवेदुष्णं धान्यराशौ न्यसेत् ततः ।
दत्त्वोपरि शरावं तु त्रिदिनान्ते समुद्धरेत् ।
पिष्ट्वा च गालयेद् वस्त्रादेवं वारितरं भवेत् ॥
कान्तं तीक्ष्णञ्च मुण्डञ्च निरुत्थं जायते ध्रुवम् ।
स्वर्णादीन् मारयेदेवं चूर्णं कृत्वा च लौहवत् ॥
सत्योऽनुभूतो योगीन्द्रैः क्रमोऽयं लोहमारणे ।
कथितं रामराजेन साकेतेशेन धीमता ॥
कौतूहलधिया येन शिक्षिता दण्डके पुरा ।
सिद्धयोगिमहर्षिभ्यो विदैषा रससंज्ञका ॥

Incineration of iron.

First process.

See fourth process, page 247, Vol II.

द्वितीयोविधिः ।

मृतसूतस्य पादेन प्रलिप्तानि पुटानले ।
पचेत् तुल्येन वा ताप्यगन्धाश्महरतेजसा ॥

Second process.

Iron is incinerated by being rubbed with one fourth its quantity of incinerated mercury, and subjected to putam. It may also be incinerated, if rubbed with an equal quantity of swarnamakshika, gandhaka, and mercury, all combined, and then subjected to putam.

तृतीयोविधिः ।

तीक्ष्णलौहस्य पत्रानि निर्दलानि दृढेऽनले ।
ध्मात्वा क्षिपेज्जले सद्यः पाषानोलुखलोदरे ॥
खण्डयेद्गाढ़निर्घातैः स्थूलया लौहपारया ।
तन्मध्ये स्थूलखण्डानि रुद्ध्वा मल्लद्वयान्तरे ॥
ध्मात्वा क्षिप्त्वा जले सम्यक् पूर्व्ववत् कण्डयेत् खलु ।
तच्चूर्णं सूतगन्धाभ्यां पुटेद्विंशतिवारकम् ॥
पुटे पुटे विधातव्यं पेषनं दृढ़वत्तरम् ।
एवं भस्मीकृतं लौहं तत्तद्रोगेषु योजयेत् ॥

Third process.

Tikshna iron is to be hammered into fine sheets, devoid of layers. These are to be heated red hot and immersed into water. They are then to be reduced to powder by means of an iron bar in a stone mortar. Portions of the sheets, too hard to be powdered, are to be confined within two earthen basins, subjected to strong heat, and then immersed into water. When cooled, they are to be reduced to powder, being hammered in the aforesaid way. The powder, thus obtained, is to be rubbed with mercury and sulphur, and subjected to putam for twenty times. Rubbing very steadily is to be resorted to, previous to each act of putam. (Juice of kanya or lemon juice or kanji may be used for the purpose of rubbing in this case).

चतुर्थोविधिः ।

हिंगुलस्य पलान् पञ्च नारीस्तन्येन पेषयेत् ।
तेन लौहस्य पत्रानि लेपयेत् पलपञ्चकम् ॥
रुद्ध्वा गजपुटे पचेत् कषायैस्त्रिफलैः पुनः ।
जम्बीरैरारणालैर्वा विंशत्यंशेन हिंगुलम् ॥
पिष्ट्वा रुद्ध्वा पचेल्लौहं तद्द्रवैः पाचयेत् पुनः ।
चत्वारिंशत् पुटैरेवं कान्तं तीक्ष्णं च मुण्डकम् ।
म्रियते नात्र सन्देहो दत्त्वा दत्त्वैव हिंगुलम् ॥
अथ पूर्व्वोदितं तीक्ष्णं वसुभल्लकवासयोः ।
पुटितं पत्रतोयेन त्रिंशद्वारैः प्रयत्नतः ।
शोणितं जायते भस्म कृतसिन्दूरविभ्रमम् ॥

Fourth process.

Twenty tolas of fine iron sheets are to be smeared with an equal quantity of hingula, previously rubbed with human milk, and then subjected to gajaputam. The iron is then to be subjected to forty more acts of putam, previously rubbed each time with one tola of hingulam mixed with the following alternately :—(1) decoction of triphala and (2) lemon juice or aranala. The iron, thus incinerated, is again to be subjected to thirty more acts of putam, having been rubbed each time with one tola of hingula mixed with the juice of white punarnava and basaka. The iron thus grows as red as red vermilion.

पञ्चमोविधिः ।

अहिमाराहिदमनीवासावज्रलतार्जुनैः ।
स्त्रीस्तन्ये हिंगुलेनायः पचेल्लिप्त्वा पुटेऽनले ॥

Fifth process.

Iron sheets are reduced to ashes, if they are subjected to putam, after having been smeared with hingula, rubbed with human milk, and the juice of the following: —ahimara, ahidamani, basaka, asthisanghara, and arjuna.

षष्ठोविधिः ।

जम्बीररससंयुक्ते दरदे तप्तमायसम् ।
बहुवारं विनिक्षिप्तं म्रियते नात्र संशयः ।

Sixth process.

Iron is incinerated, if it is heated red hot and then immersed for several times in a solution made of lemon juice, salt, and cinnabar.

सप्तमोविधिः ।

शुद्धं लौहं विचूर्णितं तदनु गोतोये विभाव्यं दिने ।
रात्रौ चैव पुटाश्च विंशतिमिताः शरावसंपुटे शुभे ॥
एवं वै त्रिफलाजलस्य कथितविधिना षष्टि पुटाः ।
कन्याया रसभावनाश्च कथिताश्चाष्टौ च वैद्यैः पुटाः॥

वज्रार्कहलिनींगुदीद्विरजनीगुंजातुरंगघन-
निर्गुंडीगरुड़ीकुठेरकनकवह्निकमत्स्यालता-
हेमहंसपदीजटामृतलताभृंगेन्द्ररसैर्दिने ।
रात्रौ तद्रसैश्च पृथक् पृथगहोसप्तैव भावाः पुटाः ॥
राजीतक्रयुतं सुखल्वकतलेपिष्ट्वा दिनैकं दृढम् ।
भावाश्चैवं पुटाश्च सप्त कथिताः सर्वैश्च वैद्याधिपैः ॥
पश्चाद्भावपुटाश्च पंच सततं पंचामृतानां पुनस्तच्चूर्णं
दशांशदरदयुतं मर्द्यं च क्षीरे स्त्रियाम् ॥*
गोदुग्धे च दिवात्रयोपि संततं पिष्ट्वा च भावाः ।
पुटेत् पश्चादर्द्धसुपारदेन शुचिना गंधेन कन्यारसैः ॥
तच्चूर्णं परिमर्द्दयेद् दृढतरं संपाचयेत् संपुटे
पश्चात् केवलं कन्यकाशुचिरसैर्भस्म त्रिशः पाचयेत् ॥
पश्चात् कज्ज्वलीसन्निभं जलतरं शुद्धं च लौहं
भवेत् ।
एवं प्रोक्तंवलाजलैः परिहतं तल्लौहमुक्तं शुभम्

Seventh process.

Purified and powdered iron is to be subjected to bhavanas with cow's urine in day time and heated by putam at night. This process is to be performed

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* दधि दुग्धं घृतञ्चैव शर्करासंयुतं मधु ।
पञ्चामृतमिदं प्रोक्तं विधेयं शुभकर्म्मसु ॥

for twenty times. The iron is then to be treated similarly for sixty times with the decoction of triphala, and with the juice of kanya for eight times. This is then to be subjected to bhavana for seven times in day time and as many times at corresponding nights, with the juice of each of the following plants, and subjected to heat by putam after each act of bhavana :— Bajra, arka, halini, ingudi, haridra, daruharidra, gunja, ashwagandha, nagaramustha, nirgundi, patala-garuri, bana-tulashi, dhattura, chitraka, matsyakshi, red hansapadi, jatamamsi, amrita-lata (a kind of guduchi growing in the amarkantaka forest), bhringaraja, and indra-baruni.

The iron is thus to be rubbed steadily for one day with raji and butter-milk and heated by putam. This process is to be performed for seven times. The iron is then to be rubbed with each of the five things known by the name of panchamritam (viz. curd, milk, ghee, honey, and sugar), and subjected to putam each time. The iron is then to be rubbed with human milk for sometime, and with cow's milk for three days at a stretch, and then heated by putam. The product is then to be mixed with half its quantity of purified mercury and the same quantity of purified sulphur, and then rubbed with the juice of kanya to be heated by putam. Next the iron is to be rubbed with the juice of kanya only, for three times, and heated by putam every time. The ashes, thus prepared, may then be rubbed with the juice or decoction of balā only, and used according to requirements.

अष्टमोविधिः ।

तीक्ष्णदलोद्भुतं सूक्ष्मरजश्च त्रिफलाजलैः ।
पिष्ट्वा दत्त्वौदनं किंचिच्चक्रिकां प्रविधाय च ॥
शोषयित्वाऽति यत्नेन प्रपचेत् पञ्चभिः पुटैः ।
रक्तवर्णं हि तद्भस्म योजनीयं यथायथम् ॥

Eighth process.

Tikshna iron, finely powdered, is to be rubbed with decoction of triphala and a little of powdered rice or wheat, and made into small cakes which are to be dried and subjected to putam. Performance of this process for five times leads to the reduction of iron to red-coloured ashes.

नवमोविधिः ।

मत्स्याक्षीगन्धवाह्लीकैर्लकुचद्रवपेषितः ।
विलिप्य सकलं लौहं मत्स्याक्षीकल्कपेषितम् ॥
भस्त्राभ्यां सुदृढं ध्मात्वा त्रिशूलीनिर्गमावधि ।
अथोद्धृत्य क्षिपेत् क्वाथे त्रैफले गोजलात्मके ॥
तस्मादाहृत्य संताड्य मृतमादाय लौहकम् ।
पुनश्च पूर्ववत् ध्मात्वा मारयेदखिलायसम् ॥
मर्दयित्वा ततोगन्धगुड़त्रिफलजोदकैः ।
पुटैस्त्रिंशत्संख्यकैश्च निरुत्थं भस्म जायते ॥

Ninth process.

Iron sheet, smeared first of all with a paste made of matsyakhi, and then with another paste made of the juice of lakucha fruit, matsyakhi plant, and saffron, is to be heated strongly by means of two bellows till the rise of flames. This is then to be immersed in a decoction of triphala mixed with cow's urine. The iron is then to be hammered into fine powders. The part which has not been incinerated are again to be heated and incinerated in the afore-said way. The ashes, thus obtained, are to be subjected to putam for thirty times after having been rubbed each time with sulphur, molases, and decoction of triphala. The ashes, thus prepared, are incapable of being restored to their original state *i. e.*, the state of iron before incineration.

दशमोविधिः ।

समगन्धमयश्चूर्णं कुमारीवारिमर्दितम् ।
कियत्कालं पुटीकृतं चूर्णितं म्रियते ध्रुवम् ॥

Tenth process.

Powdered iron is incinerated, if it is subjected to putam after having been rubbed for sometime with an equal quantity of sulphur and a sufficient quantity of juice of kanya.

एकादशोविधिः ।

गोमूत्रैस्त्रिफला क्वाथ्या तत्कषायेन भावयेत् ।
त्रिसप्ताहं वरं लौहं दिनैकं मर्दयेत् पुनः ॥

रुद्ध्वा गजपुटे पाच्यं ततः क्वाथेन मर्द्दयेत् ।
दिवा मद्यं पुटेद्रात्रावेकविंशत्यहावधि ॥
एकविंशतिसंपुटैम्रियते त्रिविधं ह्ययः ॥

Eleventh process.

Iron of excellent quality is to be subjected to bhavana for twenty one days with cow's urine, previously boiled with triphala. It is then to be rubbed for one day with the above decoction and subjected to heat by gajaputam. Next it is to be rubbed during day time with the above decoction, and subjected to putam at night. Performance of the process for twenty one days, leads to the incineration of the iron.

द्वादशोविधिः ।

शुद्धलौहभवं चूर्णं पातालगरुड़ीरसैः ।
मर्द्दयित्वा पुटेद्वह्नौ दद्यादेवं पुटत्रयम् ॥
पुटत्रयकुमार्य्याश्च कुठारछिन्नाया रसैः ।
पुटषट्कं ततो दद्यादेवं तीक्ष्णं मृतं भवेत् ॥

Twelfth process.

Purified and powdered iron is to be rubbed with juice of patalagaruri and heated by putam. This is to be performed thrice. It is similarly to be treated with the juice of kanya for three times, and for six times with the juice of kuthara-chhinna. This will lead to the incineration of the tikshna iron.

त्रयोदशोविधिः ।

द्वादशांशेन दरदं तीक्ष्णचूर्णेन मेलयेत् ।
कन्यानीरेन संमर्द्य यामयुग्मं तु तत् पुनः ॥
शरावसंपुटे कृत्वा पुटेद्व गजपुटेन च ।
सप्तधैवं कृतं लौहरजो वारितरं भवेत् ॥

Thirteenth process.

Powdered and purified tikshna iron, mixed with one twelfth its weight of cinnaber, is to be rubbed for six hours with the juice of kanya, and then subjected to heat by putam. This process is to be performed for seven times leading to the incineration of the powder, which will be so light as to float upon the surface of water.

चतुर्दशोविधिः ।

लौहचूर्णं पलंचैवोषरकस्य पलं तथा ।
अश्वगन्धा पलं चापि सर्व्वमेकत्र मर्द्दयेत् ॥
कुमार्यद्भिर्दिनं पश्चात् गोलकं ऋभुपत्रकैः ।
संवेष्ट्य च मृदा लिप्त्वा पुटेद्व गजपुटेन च ॥
स्वांगशीतं समुद्धृत्य सिंदूराभमयोरजः ।
मृतं वारितरं ग्राह्यं सर्वकार्य्यकरं परम् ॥

Fourteenth process.

Purified and powdered iron, usharaka (saltpetre), and asvagandha, each one palam in weight—all of

these are to be rubbed together with the juice of kanya for one day, and made into a ball which is to be wrapped up with the leaves of eranda and coated all round with mud. This ball, when dried, is to be heated by gajaputam, leading to the reduction of the iron into red ashes, which will float upon the surface of water.

पञ्चदशोविधिः।

अर्ज्जुनस्य त्वचा पेष्या कांजिकेनातिलोड़िता।
तन्मध्ये लौहचूर्णञ्च कांस्यपात्रे विनिक्षिपेत्॥
ततोऽयं धार्यते घर्म्मे द्रवैः पूर्यः पुनः पुनः।
अर्जुनस्यारणालैर्वा लौहमेवं विमारयेत्॥

Fifteenth process.

Bark of arjuna is to be rubbed with water, mixed with kanji and kept in a bell-metal pot. Purified and powdered iron is to be thrown into the afore-said liquid, and the pot containing the whole thing is to be exposed to the heat of the sun. Fresh juice of arjuna bark or aranala is to be poured into the pot over and over again, as soon as the iron is found to be dried. This leads to the incineration of iron.

षोड़शोविधिः।

दन्तीपत्रद्रवेन हि लौहचूर्णं विलोड़येत्।
दिनैकं धारयेद् घर्म्मे द्रवं देयं पुनः पुनः॥
रुद्ध्वा रात्रौ पुटे पचेदेभिर्द्रावैश्च भावयेत्।
एवमष्टदिनं कुर्य्यात् लौहस्य मृत्यवे खलु॥

Sixteenth process.

Purified and powdered iron is to be mixed with the juice of danti leaves, and exposed to the heat of the sun for one day, the juice being applied as many times as necessary for the moistening of the iron powder, whenever it is dried. The iron is then to be dried and subjected to heat at night by putam. It is then to be taken out of the putam, when cooled of itself, and again mixed with the juice, and exposed to the heat of the sun. This is to be done for eight days, leading to the incineration of the iron.

सप्तदशोविधिः।

चिञ्चापत्रनिभं कुर्य्यात्तिविधं लौहपत्रकम्।
मृत्पात्रस्थं क्षिपेत् घर्म्मे दन्त्या द्रावैः प्रपूरितम्॥
द्रावोऽयं दीयते तावत् यावज्जरति लौहकम्।
म्रियते तीव्रघर्म्मेन चूर्णितं तन्नियोजयेत्॥

Seventeenth process.

Iron is to be made into leaves as thin and small as tamarind leaves. These are then to be kept immersed in the juice of danti, contained in an earthen vessel, which is to be exposed to the heat of the sun.

The heating is to be continued with fresh juice of danti applied, over and over again, till the incineration of iron, which is to be powdered very fine, when the process is completed.

अष्टादशोविधिः ।

कान्तं तीक्ष्णं तथा मुण्डं पत्रीकृतं विशोधयेत् ।
चूर्णितं भावयेत् तत् तु त्रिधा मत्स्याक्षजद्रवैः ॥
ततस्तद् भावयेद् यत्नाद् द्विदिनं चित्रकद्रवैः ।
त्रिकण्टकद्रवैस्त्र्यहं सहदेव्यास्तथैव च ॥
गोमूत्रैस्त्रिफलाक्वाथैः भावयेच्च त्र्यहं त्र्यहम् ।
धातक्याश्च ततो मर्द्यं क्रमाद्देयं पुटं पुटम् ॥
रुद्ध्वा गजपुटेनैवं मृतं योगेषु योजयेत् ॥

Eighteenth process.

Powdered and purified iron is to be subjected to bhavana for three times with each of the following :—juice of kantakari, juice of trikantaka, cow's urine, decoction of triphala, and juice of dhataki. After each act of bhavana referred to above, the iron is to be rubbed and subjected to heat by Gajaputam. This will lead to the incineration of the iron.

उनविंशोविधिः ।

द्रवैः कुरण्टपत्रोत्थैर्लोहचूर्णं विमर्दयेत् ।
दिनैकमातपे तीव्रे तथा द्रवैस्त्रिकण्टजैः ॥
वन्ध्याभृङ्गीपुनर्नवागोमूत्रैश्च दिनं दिनम् ।
गोमूत्रैस्त्रिफला क्वाथ्या तत्कषायेन भावयेत् ॥

त्रिसप्ताहं प्रयत्नेन दिनैकं मर्दयेत्ततः ।
रुद्ध्वा गजपुटे पचेद्दिनं क्वाथेन मर्दयेत् ॥
दिवा मर्द्यं पुटेद् रात्रावेकविंशत्यहानि वै ।
एकविंशत्यहेनैव म्रियते त्रिविधं ह्ययः ॥

Nineteenth process.

Purified and powdered iron is to be rubbed in the intense heat of the sun for one day with each of the following :—juice of kuranta leaves, (*b*) juice of trikantaka, (*c*) juice of bandhya, (*d*) juice of bhringaraja (*e*) juice of punarnava, and (*f*) cow's urine. The iron is next to be subjected to bhavanas for twenty one days with the decoction prepared from triphala boiled with cow's urine. The iron is then to be subjected to Gajaputam for twenty one times at night, after having been rubbed each time during the day with the same liquid (*viz.* decoction of triphala and cow's urine). This is how iron is incinerated.

विंशतितमोविधिः ।

माक्षिकश्च शिला ह्यम्लैः हरिद्रामरिचानि च ।
पिष्ट्वा तस्मिन्नयः पत्रं तप्तं तप्तं निषेचयेत् ॥
सप्तधा त्रिफलाक्वाथे जलेन क्षालयेत् पुनः ।
कुट्टयेल्लौहदण्डेन पेषयेत् त्रिफलाजलैः ॥
अम्लेनालोड़ितं रुद्ध्वा गजान्धकपुटे पचेत् ।
निरुत्थं जायते भस्म कान्तं तीक्ष्णं च मुण्डकम् ॥
षोड़शांशेन लौहस्य दातव्यं माक्षिकं शिला ॥

Twentieth process.

Makshika, manas-shila, haridra (turmeric), and maricha are to be rubbed with a sour vegetable juice. Into this solution are to be immersed hot iron leaves previously purified. They are next to be immersed, red hot, into the decoction of triphala for seven times. They are then to be washed off in water, and reduced to powder by being hammered by an iron rod. The powder, thus obtained, is to be rubbed with decoction of triphala and a sour non-metallic juice, and then heated by Gajaputam in a blind crucible. This will result in the reduction of the iron into ashes, incapable of being restored to their original state. The makshika and manas-shila used in this case should be one-sixteenth part of the iron.

एकविंशोविधिः ।

तिन्दुफलस्य मज्जाभिर्लिप्त्वा लौहं खरातपे ।
धारयेत् कांस्यपात्रस्थं दिनान्तं तत् पुटेन्निशा ॥
त्रिफलाकाथसंयुक्तं कुर्य्यादेवम् पुनः पुनः ।
अनेन म्रियते लौहमचिराद्धि न संशयः ॥

Twenty first process.

Purified and powdered iron is to be smeared with the internal kernel of tindu fruits (previously rubbed with water and made into a paste), kept in a bell-metal pot, and subjected to the heat of the sun during the whole of the day time, and again subjected to heat by putam at night, having been previously rubbed with the decoction of triphala. This process of smearing and heating, as described above, is to be repeated over and over again, leading to the incineration of the iron.

द्वाविंशोविधिः ।

स्थाल्यां वा लौहपात्रे वा लौहदर्व्या विलोड़नैः ।
पाचयेत् त्रिफलाकाथे दिनैकं लौहचूर्णकम् ॥
तत्पिण्डं त्रिफलातोयैः पिष्ट्वा रुद्ध्वा पुटे पचेत् ।
षोड़शाहानि कर्त्तव्या प्रक्रियैषा प्रयत्नतः ॥
ततः त्रिधा प्रकर्त्तव्यं स्थालीपाकम् पुटादनु ।
भृङ्गीद्रावे तालमूल्यां हस्तिकर्णस्य मूलके ॥
शतावर्य्या विदार्य्याश्च मूलकाथे च त्रैफले ।
वर्णितं सर्व्वमेतद्धि कर्त्तव्यं पुनरेव च ॥
ततः पुनर्णवातोयैर्दशमूलकषायकैः ।
वृहत्याश्च कषायैर्वा बीजपुरस्य तोयतः ॥
ब्रह्मबीजरसैः शिग्रु रसैर्गोपयसाऽपि च ।
प्रत्येकेन प्रपेष्याद्यौ पूर्व्ववत्तत्पुटे पचेत् ॥
भावयेत्तु द्रवेनैव पुटान्ते याममात्रकम् ।
प्रत्येकेन क्रमादेव पिष्ट्वा पुटैश्च पाचयेत् ।
अनेन म्रियते सम्यक् कान्तं तीक्ष्णञ्च मुण्डकम् ॥

Twenty second process.

Purified and powdered iron is to be heated with

the decoction of triphala, kept in an iron pot, and turned constantly with an iron ladle till the whole thing turns into a lump, which is to be rubbed with the decoction of triphala and subjected to heat by putam. This process is to be performed for sixteen times. The iron is then to be subjected to heat by the *sthali paka* system (to be described in process No 26) with the following liquids :—juice of bhringa-raja, juice of talamuli, juice of the root of hasti-karnapalasha, juice of the root of shatavari, juice of the root of bidari, and decoction of triphala. Next, all these processes from beginning to end are to be again performed for the second time. The iron is then to be subjected to bhavana for three hours at a stretch with each of the under-mentioned liquids, respectively :—juice of punarnava, decoction of dashamula, decoction of brihati, juice of bijapura fruit, juice or decoction of palasha seeds, and cow's milk. It is then to be rubbed with the same juice, and subjected to heat by putam after each act of bhavana and rubbing. This results in the incineration of the iron.

त्रयोविंशोविधिः ।

पत्रं लौहभवं सुतप्तमसकृत् क्वाथे क्षिपेत् त्रैफले ।
चूर्णीभूतमतो पचेत् त्रिफलजे क्वाथेऽथवा गोजले ॥
मत्स्याक्षीत्रिफलारसेन पुटयेद्‌यावन्निरुत्थं भवेत् ।
पश्चाद्भावितमद्भुतं सुपुटितं सिद्धं भवेदायसम् ॥

Twenty third process.

Iron sheets are to be burned red hot and

immersed in the decoction of triphala. They are then to be reduced to powder and boiled with a decoction of triphala or cow's urine. The iron is next to be rubbed with decoction of triphala or juice of matsyakshi, and subjected to heat by putam. The last process is to be repeated till the iron becomes incapable of being restored to its original condition. Thus incinerated, the iron gains in efficacy, if subjected to bhavana with the juices of suitable herbs, and again subjected to heat by putam after every act of bhavana.

चतुर्विंशोविधिः ।

परिप्लुतं दाड़िमपत्रवारा लौहं रजः
स्वल्पकठोरिकायाम् ।
म्रियेत वस्त्रावृतमर्कभासा पुटेत्
ततो वै त्रिफलादिवारा ॥

Twenty fourth process.

Purified and powdered metal is incinerated, if it is kept immersed in the juice of pomegranate leaves contained in a small earthen basin, and exposed to the heat of the sun, duly covered by means of a piece of cloth.

Purified iron, thus reduced, is to be rubbed with the juice or decoction of *triphaladi* and subjected to heat by putam. (For meaning of *triphaladi*, see page 48.)

पञ्चविंशोविधिः ।

विशोधितमयश्चूर्णं गोमूत्रेन विमर्दयेत् ।
शतशस्तत् पुटेद्वह्नौ मृतमेवं भवेद् ध्रुवम् ॥

Twenty fifth process.

Purified and powdered iron is to be rubbed with cow's urine and subjected to putam. Performance of this process for hundred times results in the incineration of iron.

रसव्यतिरेकेन मारितलौहस्य पुटविधिः ।

शतादिस्तु सहस्रान्तः पुटो देयो रसायने ।
दशादिस्तु शतान्तःस्यात् पुटो वै व्याधिनाशनः ॥
वाजिकर्मणि विज्ञेयः पञ्च पञ्च शताधिकः ।
पुटाद्दोषविनाशःस्यात् पुटादेव गुणोदयः ॥
म्रियते च पुटाल्लोहं पुटांस्तस्मात् समाचरेत् ।
यथा यथा प्रदीयन्ते पुटाः सुबहवो यदि ॥
तथा तथा विवर्द्धन्ते गुणाः शत सहस्रशः ॥
धातूनां नीरसं भस्म पुटाधिक्येन शस्यते ।
सरसस्य पुटाधिक्यं नैव हि गुणवृद्धये ॥

Utility of putam.

For the purpose of incineration of iron, heating by putam for ten to hundred times may be considered necessary for the cure of diseases only. Putam for hundred to one thousand times is necessary for the purpose of curing and preventing physical decay and senility. For the purpose of retention of semen, it is necessary to subject iron to putam for more than one thousand times.

Increase in the number of putam is calculated to increase the efficacy of a metal, incinerated without mercury. This is not the case with a metal incinerated by the help of mercury.

षड्विंशोविधि ।

भानुपाकात् तथा स्थालीपाकाच्च पुटपाकतः ।
निरुत्थो जायते लौहो यथोक्तफलदो भवेत् ॥

Twenty sixth process.

Iron is incinerated and becomes incapable of being restored to its former condition, if it is roasted by means of all the three different operations called (*a*) Bhanu-paka, (*b*) Sthali-paka, and Puta-paka, as described below.

भानुपाकविधिः ।

लौहद्दशदि लौहञ्च मुद्गरेण हतं मुहुः ।*
कृत्वाम्बुगलितं शुद्धं जलेन त्रैफलेन वा ॥
क्षालयेद्बहुशः पश्चाद् द्रवाच्चैव विमोचयेत् ।
शोषयेद् भानुभिः पुनर्भानुपाके प्रयोजयेत् ॥†

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* लौहद्दशादि लौहखल्वे इत्यर्थः ।

† भानुभिः सूर्य्यरश्मिभिः ।

प्रदेयं भानुपाके तु लौहतुल्यं फलत्रिकम् ।
जलं द्विगुणितं दत्त्वा चतुर्भागं तु रक्षयेत् ।
एवमुक्तफलक्काथजलं दत्त्वा पुनः पुनः ।
शोषयेत् सूर्य्यतेजोभिर्निरन्तरमहस्त्रयः ॥
अथवा तत्र तत् क्काथं दत्त्वा सप्तवारं भिषक् ।
शोषयेदर्करश्मिभिः सप्तवारं प्रयत्नतः ॥

(a) *Bhanu-paka Process.*

Purified iron is to be reduced to powder by being kept in an iron mortar and hammered repeatedly. The powder is then to be mixed with a sufficient quantity of water or decoction of triphala, and thus washed off. It is then to be dried by being exposed to the sun, subjected to the process of heating called *bhanu-paka*. For the purpose of bhanu-paka, triphala, equal in quantity to the iron, is to be boiled with double its quantity of water which is to be reduced to one fourth its quantity. The iron is now to be saturated with the decoction referred to above, and dried by the sun. The process is to be performed continuously for three days or it may be performed for seven times.

अथ स्थालीपाकविधिः ।

इत्थमादित्यपाकान्ते स्थाल्यां पाकमुपाचरेत् ।
तत्र फलत्रिकं ग्राह्यमयसस्त्रिगुणीकृतम् ॥

तस्य षोड़शिकं तोयमष्टभागावशेषितम् ।
मृदुमध्यकठोराणामन्येषामयसा समम् ॥
क्कथनीयं समादाय चतुरष्टौ च षोड़श ।
गुणानां स्थाप्यते तोयं शेषयेदयसा समम् ॥
स्वरसस्यापि लौहेन स्थालीपाके समानता ।
स्थाल्यां क्काथादिकं दत्त्वा यथाविधि विनिर्म्मितम् ।
पाकेन क्षीयते येन स्थालीपाकस्तदुच्यते ॥
हस्तिकर्णपलाशस्य मूलञ्च शतमूलिका ।
भृङ्गराजपितृप्रियपुनर्णवारसैः सह ॥
स्थाल्यां लौहं पचेद्धीरः क्काथात्तु त्रैफलादनु ।
यथादोषौषधेनापि स्थालीपाको विधीयते ॥

(b) *Sthali paka.*

Roasting of iron by sthali-paka is to be resorted to after bhanu-paka. For the purpose of sthali-paka, triphala, three times in weight of the iron, is to be boiled with water, sixteen times in weight of the former, to be reduced to one eighth of the water.

Decoctions of other things than triphala are to be prepared as follows :—The article from which a decoction is to be prepared is to be equal in weight to the iron. Such an article is to be boiled with water which is four, eight or sixteen times its weight, according as it is soft, hard, or very stiff, respectively. The quantity of the decoction, thus

prepared, should be equal to that of the iron. If the juice of a plant is to be used instead of a decoction, the quantity of such a juice should also be equal to that of the iron. Roasting by sthali-paka means heating of the iron by fire in an iron cauldron, in which the iron is boiled with some decoctions or juices of plants, till the decoction or juice is completely dried up. Such a roasting generally takes place, first of all, with decoction of triphala (to be prepared in a way described above), and then with the decoction or juice of the following:—hastikarna-palasha roots, satamuli, bhringa-raja, kesharaja, and punarnava. For the purpose of sthali-paka, juices or decoctions of other herbs also may be made use of, if called upon by the nature of the disease for the treatment of which the iron is meant to be prepared.

अथ पुटपाकविधिः ।

स्थालीपाके सुसंपक्कं प्रक्षाल्य स्वच्छवारिणा ।
शुष्कं संचूर्ण्य यत्नेन पुटपाके प्रयोजयेत् ॥
पुटाद्दोषविनाशः स्यात् पुटादेव गुणोदयः ।
म्रियते च पुटाल्लोहस्तस्मात् पुटं समाचरेत् ॥
यथा यथा प्रदीयन्ते पुटा सुबहुशो यदि ।
तथा तथा प्रकुर्व्वन्ति गुणानेव सहस्रशः ॥
पुटपाकेन पक्कं तु शस्यते रसकर्मसु ।
दशादिशतपर्य्यन्तो गदे पुटो विधिर्मतः ।
शतादिस्तु सहस्रान्तः पुटो देयो रसायने ॥

वाजिकर्मणि विज्ञेयो दशादिः शतपञ्चकः ।
तावदेव पुटेल्लोहं यावच्चूर्णीकृतं जले ॥
निस्तरङ्गे लघुत्वेन समुत्तरति हंसवत् ।
पुटपाकौषधस्यापि क्वाथो वा स्वरसोऽपि वा ॥
वक्ष्यमानप्रमाणेन कर्त्तव्यो भिषजां वरैः ।
सर्वेषां स्वरसाभावे क्वाथो ग्राह्यो मनीषिभिः ।
अभावे स्वरसस्यापि क्वाथ एव फलत्रिकात् ॥

(c) *Puta-paka.*

The iron, properly roasted by sthali-paka process, should be washed with clear water, then dried, powdered, and again roasted by puta-paka. Roasting by putam serves to remove the natural blemishes and to increase the properties of iron and other metals. Such a roasting causes the incineration of iron which gains in efficacy in proportion to the number of putam resorted to. Metals, properly incinerated by means of putam, should be used in mercurial operations. If it is meant to cure diseases only, iron, incinerated by 10 to 100 putams, may be made use of. Putams from 100 to 1000 are to be resorted to, if it is meant to prevent and cure senile decay. Putams from 10 to 500 are necessary, if it is meant to use the metal as an aphrodisiac. Putams, in case of a metal, are to be resorted to so long as it does not float upon calm water. For the purpose of puta-paka, the juice or decoction, whichever is

available, of the herbs named below should be made use of :—

अथ त्रिफलादिगणः ।

त्रिफला त्रिवृता दन्ती कटुकी तालमूलिका ।
वृद्धदारकवृश्चीरवृषपत्रकचित्रकाः ॥
शृङ्गवेरविडङ्गौच भृङ्गभल्लातकौषधम् ।
दाड़िमस्य च पत्रानि शतपुत्री पुनर्णवा ॥
कुठारकामकौ कन्दः तन्त्री भेकस्य पर्णिका ।
हस्तिकर्णपलाशश्च कुलिशः केशराजकः ॥
मानः खण्डितकर्णश्च गोजिह्वा लोहमारकाः ।
गिरिशैर्योगिभिः प्रोक्तस्त्रिफलादिरयं गणः ॥
सामान्यपुटपाकार्थमेतानीच्छन्ति सूरयः ।
विशेषपुटपाकाय गणानन्यान् शृणुदितान् ॥

अथ एरण्डादिगणः ।

एरण्डः शारिवा द्राक्षा शिरीषश्च प्रसारणी ।
माषमुद्गाख्यपर्णिनौ विदारीकन्दकेतकी ।
एरण्डादिगणो ह्येष सर्व्ववातविकारनुत् ॥

अथ किरातादिगणः ।

किरातममृता निम्बः कुस्तुम्बुरु शतावरी ।
पटोलंचन्दनं पद्मं शाल्मल्युडुम्बरी जटा ।
पैत्तिकामयहन्ताऽयं किरातादिगणोमतः ॥

अथ शृङ्गवेरादिगणः ।

शृङ्गवेरस्य मूलानि निर्गुण्डी कौटजं फलम् ।
करञ्जद्वितयं मूर्वा शोभाञ्जनशिरीषकौ ॥
वरुणश्चार्कपर्णंच पटोलं कण्टकारिका ।
शृङ्गवेरादिको ह्येष गणः श्लेष्मगदापहः ॥

अथ गोक्षुरादिगणः ।

गोक्षुरक्षुरकौ व्याघ्री सिंहपुच्छीद्वयं स्थिरा ।
गोक्षुरादिरिति प्रोक्तो वातश्लेष्महरोगणः ॥

अथ पटोलादिगणः ।

पटोलपत्रकोशीरकासमर्द्दापराजिताः ।
लोध्रेन्दीवरकह्लारवराही कान्तया सह ।
पटोलादिरिति ज्ञेयः पित्तश्लेष्मगदापहः ॥

अथ किंशुकादिगणः ।

किंशुकः काश्मरी विश्वमग्निमन्थस्त्रिकण्टकः ।
श्योनाकं सप्तपर्णी च सिंहपुच्छीद्वयं स्थिरा ॥
पाटला कण्टकारी च बृहती बिल्वमेव च ।
किंशुकादिगणो ह्येष दोषत्रयहरोमतः ॥

अथ शतावर्य्यादिगणः ।

शतावरी बला धात्री गुडूची वृद्धदारकः ।
वानरीभृङ्गराजाख्यविदारीगोक्षुरक्षुराः ।
वाजिगन्धा कणा चैव वाजिकर्म्मसु शस्यते ॥

अथ विदार्य्यादिगणः ।

विदारीकन्दपिण्डाह्वभृङ्गराजशतावरी ।
क्षीरिकंचुकभल्लातामृतकाचित्रकास्तथा ॥
करिकर्णपलाशश्च मुषलीमधुकावपि ।
मुण्डरीकेशराजौच शस्ता एते रसायने ॥

अथ पुटपाके उपदेशः ।

सामान्ये च विशेषे च पुटे यद्‌यत् प्रकीर्त्तितम् ।
मिलितैरेकशो वा तैर्यथेष्टं पुटयेत् ततः ।
पुटपाके फलादीनामयसा ग्रहणं समम् ॥

Triphaladi gana.

They are as follows:—triphala, trivit, danti, katuki, tala-muli, briddha-dara, brischira, basaka, chitraka, ardraka, biranga, bhringa-raja, bhallataka, shunthi, darima leaves, shatamuli, punarnava, kuthar-chhinna, mustaka, suranam, guduchi, veka-parni, hasti-karna-palasha, asthi-sanhara, kesha-raja, mana, khandita-karna (kharakona), and go-jihva. These are incinerators of iron. They are generally used in the process of heating of iron by putam.

Erandadi-gana.

They are as follows:—eranda, shariba, draksha, shirisha, prasarani, mashaparni, mudgaparni, bidari-kanda, and ketaki. They serve to pacify all the diseases due to an abnormal excess of air. Iron, rubbed with the juice or decoction of these drugs,

and heated by putam, is therefore efficacious in diseases due to an excess of vayu.

Kiratadi-gana.

are as follows:—kirata, guduchi, nimba
reen dhanya, shatavari, patala, chandana,
, shalmali, udumbara, and jata-manshi. They
e to pacify all the diseases due to an abnormal
ex ess of pittam. They should therefore be specially used in the process of incineration of iron by heating by putam, if it is meant to use such iron in diseases due to excess of pittam.

Shringaberadi gana.

They are as follows:—ardraka, nirgundi, indra-java, karanja, visha-karanja, murba, shobhanjana, shirisha, baruna, arka leaves, patala, and kantakari. They serve to cure diseases due to an excess of kapha. They should therefore be used in the process of incineration of iron by heating by putam, if it is meant to use such iron in diseases due to an excess of kapha.

Gokshuradi gana.

They are as follows:—gokshura, kokilaksha, kantakari, shala-parni, and prishni-parni. They serve to pacify an abnormal excess of vayu and kapha. They are therefore to be specially used in processes of incineration of iron by heating by putam, if it is meant to use such iron in diseases due to an excess of vayu and kapha.

Pataladi-gana.

They are as follows:—patala leaves, ushira,

kasha-mards, aparajita, lodhra, nilotpala, kalhara, (white utpala), barahi-kanda, and priyangu. They serve to pacify diseases due to an excess of pittam and kapha. Iron meant to cure such disease[illegible] [illegible]ld be rubbed with the juice or decoction [illegible] drugs before it is heated by putam.

Kinshukadi-gana.

They are as follows :—palasha, gambhari bark, shunthi, agnimantha, trikantaka, shyona, sapta-parni, shala-parni, prishni-parni, shalmali, patala, kantakari, brihati, and bilva. They serve to pacify diseases due to an abnormal excess of the three doshas (i.e. vayu, pittam, and kapha). Iron meant to cure such diseases should be rubbed with the juice or decoction of these drugs and then heated by putam.

Shatabarjadi gana.

They are as follows :—shatabari, bala, amalaki, guduchi, briddha-daraka, banari, bhringa-raja, kesha-raja, bidari, gokshura, kokilaksha, ashva-gandha, and pippali. They are aphrodisiac. Iron meant to be of this description should be incinerated with these drugs.

Bidarjadi gana.

They are as follows :—bidari-kanda, tagara, bhringa-raja, shatabari, kshirika, kanchuka, bhallataka, guduchi, chitraka, hasti-karna-palasha, mushali, jasti-madhu (or mahua plant), mundiri, and kesharaja. These are curer and preventer of senile decay. Iron meant to be of this description should be rub-

b[illegible]d with the juice or decoction of these drugs, before it is heated by putam.

B. Iron should be rubbed, before being heated by putam, with all or any one of the groups of drugs referred to above, according to the necessity of the case. Such a rubbing, followed by an act of heating by putam, may be repeated as many times as desired. For the purpose of each act of such a rubbing, the quantity of the juice or decoction of the group of drugs referred to above should be equal to that of the iron.

प्रयोजनवशात् पुटपाके प्रयोज्या वनस्पतयः ।

वारिशिग्रु पलाशेभकर्णभृङ्गद्रवाम्भसा ।
अत्रोत्तरे पुनर्दद्याद्भूयसस्त्रिफलापुटान् ॥
तद्दानाद्बद्धकोष्ठस्य लौहं वातानुलोम्यकृत् ।
स्मृतं पिप्पलितोयेन मन्दाग्नेरग्निवृद्धये ॥
विदारीवारिणा क्लैब्येऽरुचौ जम्बीरवारिणा ।
शिरीषतोयैर्वैवर्ण्ये वाते वाट्यालकाम्भसा ॥
पित्ते पर्पटतोयेन मरिचार्द्राम्बुना कफे ।
दशमूलीकषायेन सन्निपातोद्भवे गदे ॥
किराततिक्ततोयेन ज्वरेषु विषमेषु च ।
गुरुचीवारिणा मेहेऽतिसारे कुटजाम्भसा ॥
ब्रह्मयष्ट्यम्भसा श्वासे कासे वासकवारिणा ।
काकोदुम्बरिकातोयै रक्तपित्तप्रशान्तये ॥

पाण्डुत्वे महिषीमूत्रैः क्रमौ जन्तुघ्नतण्डुलैः ।
कुष्ठे विडङ्गभल्लातैः प्लीह्नि रोहितकाम्भसा ॥
सिन्दुवारद्रवैर्मूत्राघाते शूले तुषोदकैः ।
पामादद्रुविचर्चीषु दद्याद्दद्रुघ्नवारिणा ॥
मुशलीवारिणार्शःसु हृद्रोगेऽर्जुनवारिणा ।
आमवातप्रशान्त्यर्थमुच्चटामूलजैर्द्रवैः ॥
सोमराजीजलैः कुष्ठे तथा हि खदिरोदकैः ।
शिलोद्भेदाम्बुनाऽश्मर्य्यामुदावर्त्ते त्रिवृज्जलैः ॥
गुल्मेऽम्लदाड़िमाम्भोभि र्ब्राह्मीतोयैः स्वरक्षये ।
वाजिगन्धाजटातोयै राजयक्ष्मनिवृत्तये ॥

Putam with special drugs for the treatment of special diseases.

Iron is to be subjected to heat by putam after having been rubbed with the following drugs, if it is meant to cure constipation :—triphala, sigru, hasti-karna-palasha, bhringa-raja, and again triphala. Similarly, iron is to be rubbed with decoction of pippali for the purpose of curing indigestion. Juice of bidari is to be used for the treatment of impoteney. Lime juice is to be made use of, for the treatment of loss of appetite. Decoction of shirisha is to be thus used for the removal of loss of complexion. Juice of bala is to be used for the treatment of rheumatism, paralysis, and other diseases due to excess of vayu. Juice of parpata is to be used for

diseases due to pittam. Decoction of dashamula for disesases due to an abnormal excess of the three doshas. Juice of kirata-tikta is to be used in bisama-jvaram (malaria, kalazar, etc.). Decoction of guduchi in spermatorrhoea. Juice of kutaja in diarrhœa. Juice of bhargi in asthma. Juice of bashaka in cough. Juice of kakodumbura in racta-pitta. Urine of she-buffalo is to be used in anemia. Decoction of biranga and rice in worms. Decoction of biranga and bhallataka in leporsy. Decoction of rohitaka in spleen. Juice of sindu-bara in gleet and stricture. Kanji in colic. Juice of dadrumari in itches and ringworm. Juice of mushali in piles. Juice of arjuna in heart disease. Juice of ucchata roots in rheumatism. Decoction of somaraji and khadira wood in leprosy. Juice of shilodbheda in stone disease. Juice of tribrit in udabarata or intestinal obstruction. Juice of sour pomegranate in gulma. Juice of brahmi in hoarseness of voice. Juice of ashva-gandha and jata-mangsi in phthisis.

पुनः स्थालीपाकविधिः ।

अथ कृत्वायोभाण्डे दत्त्वा त्रिफलाद्यशेषमन्यद्वा ।
प्रथमं स्थालीपाकं कुर्य्यादेतत् त्रयात्तदनु ॥
गजकर्णच्छदमूलशतावरीभृङ्गकेशराजरसैः ।
प्राग्वत् स्थालीपाकं कुर्य्यात् प्रत्येकमेकं वा ॥

(d) Sthalipaka for the second time.

The iron reduced in the above manner is to be

boiled with triphaladi, etc. (see page 47) in an iron pot. When dried, it is again to be boiled with some or all of the following juices :—hasti-karna-palsha roots, satabari roots, bhringa-ra ja, and kesha-raja.

सप्तविंशोविधि।

कान्तादिलौहमारणविधानसर्व्वस्व उच्यते तावत्।
यस्य कृते तल्लौहं पक्तव्यं तस्य शुभदिवसे॥
सम्मृदङ्गारकरालोन्नतभूभागे शिवं समभ्यर्च्य।
वैदिकविधिना वह्निं निधाय दत्त्वाहुतीस्ततः॥
शक्त्यनुरुपं दद्याद् द्विजाय सन्तोषिने गुणिने॥
सन्तोष्य कर्मकारं प्रसादपूगादिदानसम्मानैः।
आदौ तदश्मसारं निर्मलमेकान्ततः कुर्यात्॥
तदनु कुठारच्छिन्नत्रिफलागिरिकर्णिकास्थिसंहारैः।
करिकर्णच्छदमूलशतावरीकेशराजरसैः॥
शालिञ्चमूलकाशीमूलप्रावृज्जभृङ्गराजैः।
लिप्त्वा दग्धव्यं तद् दृष्टिक्रियलोहकारेण॥
चिरजलभावितनिर्मलशालाङ्गारेण परित आच्छाद्य।
कुशलाध्मापितभस्त्रानवरतमुक्तेन पवनेन॥
मृच्छवलसलिलभाञ्जि किञ्च स्वच्छाम्बुसंप्लुतानि॥
द्रव्यान्तरसंयोगाद्वा स्वां शक्तिं भेषजानि मुञ्चन्ति।
मलधलिमत् सर्वं सर्व्वत्र विवर्जयेत् तस्मात्॥

संदंशेन गृहीत्वान्तः प्रज्वलिताग्निमध्यादपनीय।
गलति यथायथमग्रे तथैव दग्धं रचयेन्निपुणः॥
तलनिहितमूर्द्धमुखांकुशलग्नं त्रिफलाजले
विनिःक्षिपेत्।
निर्वापयेदशेषं शेषं त्रिफलाम्बु रक्षेच्च॥
यल्लौहं न मृतं तत् पुनरपि पक्तव्यमुक्तमार्गेण।
न मृतं तथापि यत् तन् न पक्तव्यमलौहमेव हि तत्॥
तदनु घनलौहपात्रे कालायसमुद्गरेण संचूर्ण्य।
दत्त्वा बहुशः सलिलं प्रक्षाल्याङ्गारमुद्धृत्य॥
तदयः केवलमग्नौ शुष्कीकुर्वातपेऽथवा पश्चात्।
लौहशिलायां पिंष्यादसितेऽश्मनि वा तदप्राप्तौ॥

Twenty seventh process.

Shiva is to be worshipped on a piece of land, duly cleansed, on a day considered auspicious for the man for whom the iron is meant to be prepared (an auspicious day is to be ascertained having regard to the configuration of the planets for the time being, with special reference to the position of the moon at the time of birth). The worship is to be conducted and a sacrifical fire is to be kindled in accordance with the rites prescribed in the Vedas. Presents may also be given to the Brahmanas, chemists, and the smiths according to ability. First of all, the iron is to be purified very carefully. It is to be coated with a paste made of

the following herbs, covered by means of charcoal prepared from shala wood (previously cleansed by being wash d off in clear water), and heated by means of a bellows :—kuthara-chinna, triphala, girikarnika (black aparajita), asthi-sanhara, hasti-karna-palasha-roots, shatavari, kesha-raja, shalincha-roots, mulaka, and bhringa-raja. The iron, thus heated, is to be immersed into decoction of triphala only, when the coating is completely burnt out. It is then to be washed off, dried, and duly powdered. The process is to be repeated over and over again until the iron is reduced to ashes. The metal which is not incinerated by the above process is not iron at all. In performing the process, care should be taken to see that dust, mud, and other impurities do not find their way into the iron at any stage of its incineration, in as much as herbs and other medicinal ingredients lose their property coming in contact with foreign matters.

अथ पुटपाकप्रकारः।

लौहादि पुटनीयं हि रवितापसुशोधितम्।
संरुध्य मृत्शरावाभ्यां सन्धिलेपं समाचरेत्॥
सपंकवस्त्रखण्डेन तथा कर्दमयोगतः।
शरावसंपुटं तद्धि संपुटं च पुटं तथा॥
पाचनं पुटयन्त्रेन पुटपाको विकथ्यते।
हस्तमात्रमिते गर्त्ते करीषेनार्द्धपूरिते॥

अथवा तुषकाष्ठाभ्यां शरावसंपुटं क्षिपेत्।
अग्निं निधापयेत् तत्र ततो गर्त्तं प्रपूरयेत्॥
दिवा वा यदि वा रात्रौ विधिनानेन पाचयेत्।
चतुर्भिः प्रहरैरेव पुटपाकेन मारयेत्॥
कुक्कुटपुटसंज्ञोऽयं पुटपाको विकथ्यते।*
पुटपाके क्षणादूर्द्ध्वं स्थितो भवति भस्मसात्॥
अधस्तादपकृष्टस्तु मन्दो भवति वीर्य्यतः।
कुण्डस्थो भस्मनाच्छन्न आकृष्टव्यः सुशीतलः।
समाकृष्टस्य ततस्य गुणहानिः प्रजायते॥

How to heat a thing by putam.

The material which is meant to be heated by putam is to be dried up by sun's rays, and put upon an earthen basin, covered by another basin of the same kind, the joint being closed by means of mud and rags. The basins, thus joined, are called putam, samputam or sharaba-samputam. Heating of materials, confined in this appartus, is called puta-paka.*

Fill up one half of a cubical pit, one cubit in dimensions, with cowdung cakes or wood and husks, set fire to it, and place the samputam containing iron, etc, upon the heap. Fill up the remaining half of the pit with cowdung cakes, etc. Such a

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* प्रथम खण्डे २९३—२९६ पृष्ठाः द्रष्टव्याः।

* See page 293 and 296, Vol. I.

fire is to be kept burning for 12 hours continuously. When cooled of itself, the samputam is to be taken out, and the iron, etc, to be obtained, breaking open the samputam. Heating in this way is known by the name of kukkuta putam (see page 296, Vol. 1) Heated in this way, even a little longer than the prescribed time of 12 hours at a time, the contents of the iron becomes incinerated; but they lose in quality, if they are heated for a shorter than the time prescribed.

अष्टाविंशोविधिः ।

ज्ञेयमेतत् स्वतन्त्राऽयःपाकं न पलपञ्चकादर्वाक् ।
सुबहुप्रयासदोषादूर्द्ध्वं पलत्रयोदशकात् ॥
तत्रायसि पचनीये पञ्चपलादौ त्रयोदशपलान्ते ।
लौहात् त्रिगुणा त्रिफला ग्राह्या षड्भिः पलैरधिका ॥
मर्द्दनपुटनस्थालीपाकास्त्रिफलैकभागसम्पाद्याः ।
त्रिफलाभागद्वितयं ग्रहणीयम् लौहपाकार्थम् ॥
सर्व्वत्रायःपुटनस्थालीपाककार्य्ये जलं संख्यातम् ।
त्रिफलप्रतिपलं तद्द्विगुणं वाऽथ क्वाथार्थमादेयम् ॥
तत्राष्टमांशेन शेषः क्वाथस्य यत्नतः स्थाप्यः ।
तेन हि मर्द्दनपुटनस्थालीपाका भविष्यन्ति ॥
पाकार्थे तु त्रिफलाभागद्वितयं शरावसंख्यातम् ।
प्रतिपलमम्बुसमं स्यादधिकं द्वाभ्यां शरावाभ्याम् ॥

तत्र चतुर्थीभागः शेषो निपुणैः प्रयत्नतो ग्राह्यः ।
अयसः पाकार्थत्वात् स हि सर्व्वस्मात् प्रधानतमः ॥
पाकार्थमश्मसारे पञ्चपलादौ त्रयोदशपलान्ते ।
दुग्धशरावद्वितयं पादैरेकाधिकैरधिकम् ॥
पञ्चपलादेर्मात्रा तदभावे तदनुसारतो ग्राह्यम् ।
चतुरादिकमेकान्तं शक्तावधिकं त्रयोदशादिकात् ॥
त्रिफलात्रिकटुचित्रककान्तक्रामकविडङ्गानाम् ।
जातीफलजातीकोषैलाकक्कोललवङ्गानाम् ॥
सितकृष्णजीरयोरपि चूर्णान्ययसा समानानि स्युः ।
त्रिफलात्रिकटुविडङ्गा नियता अन्ये यथाप्रकृति ॥
कालायसदोषकृते जातीफलादेर्लवङ्गकान्तस्य ।
क्षेपः प्राप्त्यनुरूपः सर्व्वस्योनस्य चैकाद्यैः ॥
कान्तक्रामकमेकं निःशेषं दोषमपहरत्ययसः ।
द्विगुणत्रिगुणचतुर्गुणमाज्यं ग्राह्यं यथाप्रकृति ॥
यदि भेषजभूयस्त्वं स्तोकत्वं वा तथापि चूर्णानाम् ।
अयसा साम्यं संख्याभूयोऽल्पत्वेन भूयोऽल्पे ॥
एवं धात्वनुसारात् तत्तत् कथितौषधस्य बाधेन । *
सर्व्वत्रैव विधेयस्तदकथितस्यौषधस्योहः ॥

Twenty Eighth process.

For the purpose of incineration, the minimum

* बाधेन वर्जनेनेत्यर्थः ।

and maximum quantities of iron should be 5 and 13 palas, respectively. In other words, iron less than 5 palas and more than 13 palas in quantity is unfit for incineration. For the purpose of such incineration, triphala, three times in weight of the iron, plus 6 palas is to be made use of. One third of this triphala is to be used for the purpose of rubbing, heating by putam and by sthalipaka process. For the purpose of the final act of roasting, the remaining two thirds of triphala is to be used. For the purpose of rubbing and heating by putam of iron, the quantity of water to be used for the preparation of decoction of triphala should be sixteen or thirty two times that of the triphala. If the quantity of iron varies from seven palas to 13 palas, the quantity of water to be used in preparing decoction should be as stated above, plus an additional quantity of 3 to 11 sarabas on the whole. The quantity of water thus used is to be reduced, by boiling, to one eighth of its original quantity. The decoction, thus prepared, should be used in rubbing and heating by putam and then boiling the iron by the sthali-paka process.

Next is the process of final roasting. For this purpose, the parts of triphala, as referred to above, should be boiled with water, eight times in weight, plus an additional quantity of two sarabas added to the whole. The water thus boiled with triphala should be reduced to one fourth its original weight. The decoction so prepared is the most important factor in the process of final roasting

of the iron. If kanta iron or load stone is to be reduced to ashes, milk, one and one fourth prasthas in weight, should be added to the decoction at the time of the final roasting. Kanta iron or load stone may be incinerated, even if it is less than five palas in weight. As a matter of fact, the less the weight of the kanta iron to be incinerated, the greater is its efficacy. The milk referred to above is prescribed for the preparation of kanta lauha, 5 to 13 palas in weight. If the quantity of the kanta iron is less than 5 palas, the quantity of the milk to be used should be reduced accordingly. At the time of the final roasting of all sorts of iron, including load stone, powder of the following herbs, equal in quantity to the iron, is to be mixed with the iron undergoing roasting:—triphala, trikatu, chitraka roots, nagarmustaka, bidanga, jatiphala, jatipatra, ela, kakkola, lavanga. white jira, and black-jira. Of these, triphala, trikatu, and bidanga are to be used in all cases, whereas they are to be chosen from, having regard to the constitution of the patient for whom the preparation is meant. For the purpose of removing the faults of black iron (कालायसः), all the herbs from jatiphala to lavnga are to be given so far as they can be procured. In the event of the one being incapable of being procured, that which precedes it in the above list should be used as a substitute. Of all the herbs named above, only nagara mustaka is sufficient for removing the faults of any iron. In all cases of final roasting, clarified butter to the extent of 2 to

4 times in weight of the iron (to be decided upon in reference to the constitution of the patient) is to be applied at the final roasting. Herbs, not included in the list, may also be made use of, if considered necessary, exactly as one or more of those included in the list may be rejected, if called upon by the nature of the case.

ऊनत्रिंशोविधिः ।

लौहचूर्णं पलद्वन्द्वं गुड़गन्धौ समांशकौ ।
खल्वे विमर्द्य नितरां पुटेद्विंशतिवारकम् ॥
पेषणं तु प्रकर्तव्यं पुटः पश्चात्प्रदीयते ।
अनेन विधिना सम्यग्भस्मीभवति निश्चितम् ॥
सर्वरोगान् निहन्त्येव नात्र कार्या विचारणा ।
श्वेतपुनर्णवापत्रतोयेन दशसंख्यकाः ।
पुटास्ततः प्रदेयाश्च सिन्दूराभं प्रजायते ॥

Twenty ninth process.

Two palas of purified and powdered iron and the same quantity of each of gandhaka and gurh (molases) are to be rubbed together and heated by putam. This process is to be performed for twenty times leading to the incineration of the iron, which should then be rubbed with the juice of white punarnava for ten times, and subjected to heat each time it is so rubbed. The product will be ashes as red as vermilion.

त्रिंशोविधिः ।

दाड़िमस्य दलं पिष्ट्वा तच्चतुर्गुणवारिणा ।
तद्रसेनायसं चूर्णं प्लावयेत् तु सुशोधितम् ॥
आतपे शोषयेत् तच्च पुटेदेवं पुनः पुनः ।
एकविंशतिवारैस्तन् म्रियते नात्र संशयः ॥

Thirtieth process.

Powdered and purified iron is to be saturated with the juice of pomegrante leaves pestled with four times their weight of water. When dried by the sun, they are to be subjected to heat by putam. Performance of the process for two times results in the incineration of the iron.

एकत्रिंशविधिः ।

शिलागन्धार्कदुग्धाक्ताः स्वर्णाद्याः सर्वधातवः ।
म्रियन्ते द्वादशपुटैः सत्यं गुरुवचो यथा ॥

Thirty first process.

All the metals including gold are incinerated by being subjected to heat for twelve times, after having been rubbed with manas-shila, gandhaka and milk of arka plant.

द्वात्रिंशोविधिः ।

अथ मारणकर्मार्थे कथ्यन्ते भेषजानि च ।
तत्र गण्डिनिका मुख्या क्वचित्प्रोक्ता महौषधिः ॥
क्वचित् सा सालहश्चीति हरित्पर्णीति सा क्वचित् ।
दिव्यौषधीति सा कापि क्वचिन्मर्तकलम्बुका ॥

अन्यत्समानं चांगेर्य्याः कुठारच्छिन्नसंज्ञकम् ।
विकङ्कतं तृतीयं च चतुर्थं रक्तमारिषः ॥
पञ्चमं त्वचकं प्रोक्तं षष्ठमुक्तं मनःशिला ।
हिङ्गुलं सप्तमं प्रोक्तमष्टमं स्वर्णमाक्षिकम् ॥
मिलितान्येतानि हन्युः पित्तं कफमसृग्दरम् ।
विविधां पाण्डुतां कण्डु वह्निमान्द्यं विवर्णताम् ॥

Thirty second process.

The following are some of the drugs having the property of killing iron :—shalincha, kutharachhinna, bikankata, racta marisha, twachakam, manasshila, hingula, and swarna makshika. All of these combined have the property of curing pittam, kapha, menorrhagia, anemia, itches, loss of appetite, and loss of complexion. (Iron may be rubbed with all these drugs and heated by putam in the usual way).

पारदविहीनलौहभस्मनो दोषापनयनम् ।

लौहस्य नीरसं भस्म कन्यानीरेण मर्दयेत् ।
तृतीयांशरसेनैव गन्धेन द्विगुनेन च ॥
एवं यामद्वयं कुर्य्यात् ततो देयो पुटो लघुः ।
स्वाङ्गशीतं समुद्धार्यं सिद्धं भस्म सुधासमम् ॥

Removal of defects of iron incinerated without mercury.

Iron incinerated without mercury is to be rubbed with one third its weight of mercury, and sulphur,

double the quantity of mercury, for six hours with the juice of kanya. It is then to be heated by *Laghuputam*, before it is used as a drug.

त्रयोस्त्रिंशोविधिः ।

(शुक्रलौहम् ।)

प्रणम्य शंकरं रुद्रं दण्डपाणिं महेश्वरम् ।
जीवितारोग्यमन्विच्छन्नादिमः पृच्छते गुरुम् ॥
शुक्राचार्य्यं द्विजश्रेष्ठं रसज्ञमौलिभूषणम् ।
सुखोपायेन हे नाथ शास्त्रक्षाराग्निभिर्विना ।
दुर्बलानां च भीरूणां चिकित्सां वक्तुमर्हसि ॥
तच्छिष्यवचनं श्रुत्वा लोकानां हितकाम्यया ।
अर्शसां नाशनं श्रेष्ठं भैषज्यमिदमीरितम् ॥
पाण्डवज्रादिलौहानामादायान्यतमं शुभम् ।
कृत्वा निर्मलमादौ च कुनट्या माक्षिकेण वा ॥
पत्तूरमूलकल्केन खरसेन दहेत् ततः ।
वह्नौ निक्षिप्य विधिवत् शालांगारेण निर्धमेत् ॥
ज्वाला च तस्य बोद्धव्या त्रिफलाया रसेन च ।
ततो विज्ञाय गलितं शंकुनोद्धं समुत्क्षिपेत् ॥
त्रिफलाया रसे पूते तदाकृष्य तु निर्वपेत् ।
न सम्यग् गलितं यत् तु तदेव विधिना पुनः ।
ध्मातं निर्वापयेत् तस्मिन् लौहं तत्त्रिफलारसे ॥

ततः संशोष्य विधिवत् चूर्णयेल् लौहभाजने ।
लौहेन च तथा पिंष्याद् दृशदि श्लक्ष्णचूर्णितम् ॥
धृत्वा लौहमये पात्रे मार्द्ये वा लिप्तरन्ध्रके ।
रसैः पंकसमं कृत्वा पचेत् तद्गोमयाग्निना ॥
पुटानि क्रमशो दद्यात् पृथगेषां विधानतः ।
त्रिफलार्द्रकभृंगानां केशराजस्य बुद्धिमान् ॥
कन्दमानकभल्लातवह्नीनां शूरणस्य च ।
हस्तिकर्णपलाशस्य कुलिशस्य तथैव च ॥*
पुटे पुटे चूर्णयित्वा लौहात् षोड़शिकं पलम् ।†
तन्मानं त्रिफलायाश्च पलेनाधिकमाहरेत् ॥
अष्टभागावशिष्टे तु रसे तस्याः पचेद् बुधः ।
अष्टौ पलानि दत्वा तु सर्पिषो लौहभाजने ।
तावेव लौहदर्व्या तु चालयेत् विधिपूर्व्वकम् ॥
ततः पाकविधानज्ञः स्वच्छे चोर्द्ध्वे च सर्पिषि ।
मृदुमध्यादिभेदेन गृह्णीयात् पाकमाज्यतः ॥
आरभेत विधानेन कृतकौतुकमङ्गलः ।
घृतश्चामरसंयुक्तं लिहेदारक्तिकक्रमात् ॥

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* कुलिशः वज्रकर्णः काणछिँड़ा इति भाषा ।

† अन्यत्र त्रयोदशपलादूर्द्ध्वं लौहं न पाच्यम् ।

वर्द्धमानानुपानं च गव्यं क्षीरोत्तमं मतम् ।
गव्याभावेऽप्यजायाश्च स्निग्धवृष्यादिभोजनम् ॥
सद्योवह्निकरं चैव भस्मकं च नियच्छति ।
हन्ति वातं तथा पित्तं कुष्ठानि विषमज्वरम् ॥
गुल्माग्निपाण्डुरोगांश्च निद्रालस्यमरोचकम् ।
शूलं सपरिणामं च प्रमेहं चाववाहकम् ॥
श्वयथुं रक्तस्रावं च दुर्णाम च विशेषतः ।
बलदं बृंहणं चैव कान्तिदं स्वरवर्द्धनम् ॥
लाघवं च मनोज्ञं च नैरोग्यपुष्टिवर्द्धनम् ।
आयुष्यं श्रीकरं चैव वयस्तेजस्करं तथा ॥
सस्त्रीके पुत्रजननं वलीपलितनाशनम् ।
दुर्णामारिरयं चाशु दृष्टो वारसहस्रशः ।
निर्मूलं दह्यते शीघ्रं यथा तूलमिवाग्निना ॥

Thity third process.

The sage, Shukra, who was a very great chemist, gave the following recipe to his disciple, Adima, for curing piles, etc., without the use of surgical instruments, etc :—A leaf of iron of a superior quality is to be freed, first of all, from rust by manas shila or makshika. It is then to be smeared with a paste made of the roots of shalincha rubbed with the juice of the same, and burnt by means of a fire, made of charcoal prepared from the shal wood, and blown by

bellows. The intensity of the heat is to be tested by means of decoction of triphala. When sufficiently burnt, the iron is to be removed from the fire and immersed at once into the pure decoction of triphala. If it has not been completely incinerated, the iron is again to be burnt in the same way and immersed in the decoction of triphala. It is then to be cleansed properly, and powdered in an iron mortar, by means of an iron rod, and then again finely powdered in a boat-shaped iron mortar by being rubbed by an iron pestle. The iron is then to be mixed with the juices of the under mentioned drugs in such a way as to resemble mire, and then heated over fire made of cowdung cakes in an iron cauldron or in an earthen pot sufficiently strong. The iron is next to be subjected to putam after having been rubbed with the juice of each of the following separately, and in accordance with the order in which they have been given :—triphala, ardraka, bhringaraja, kesharaja, bidari-kanda, mana, bhallataka, chitraka, shurana, hasti-karna-palasha, and kulisha (khanda karna).

The iron is to be powdered each time after it is heated in the afore-said way. Sixteen palas of this iron* is to be roasted in an iron cauldron with a decoction prepared from triphala, seventeen palas in weight, boiled with 136 palas of water which is to be reduced to seventeen palas. In course of the roasting, eight palas of clarified butter is to be put into

* Iron is generally not to be prepared in quantities greater than 13 palas. The present case is an exception.

the iron which is to be turned all along with an iron ladle. The preparation is to be considered complete, as soon as the clarified butter is found to float on the surface in a clear state. It may however be still roasted according as it is intended to make it soft, harder, and very stiff (see process No. 5 page 77.)

The minimum dose of the iron, thus prepared, is one racti (i.e., it may be increased up to six ractis a day) to be taken every morning with clarified butter and honey. After taking the medicine, the patient is to drink little of cow's milk which is to be increased day by day. In the absence of cow's milk, goat's milk may be used. The diet should be prepared with clarified butter and be of a nutritious character.

This medicine increases at once the power of digestion. It cures bhasmakagni or an abnormally strong appetite, all the diseases due to an abnormal excess of vayu and pittam, leprosy, visama-jvaram (malaria, kalazar, etc.), gulma, eye-diseases, anemia, excess of sleep, lethargy, aversion to food, all sorts of colic, prameha, dysentery, dropsy, bleeding, and especially piles of all sorts. It increases strength, nutrition, beauty, activity, longevity and voice. It is easily digested and is agreeable to the patient. It increases procreative power and is a destroyer of senile decay. It has been found to cure piles immediately.

चतुस्त्रिंशोविधिः ।

सुधासागरलौहम् ।

अभ्यवहृतपूर्वस्य गुल्मतृणवनस्पतेः ।
रसेन दिवसे लौहं मर्दयित्वा निशा पुटेत् ।
द्वादशवर्षकालं हि नित्यमेव समाचरेत् ।
अभ्यवहृतपूर्वं हि रसं नित्यं प्रयोजयेत् ॥
पूर्वं संमर्दितं येन तद्रसं न पुनर्ददेत् ।
एतस्य सुधालौहस्य यवमात्रं प्रदापयेत् ॥
वृद्धमेव जराजीर्णं यतः स तरुणायते ।
दन्तानामुद्गमो पुनः शुक्लकेशस्य कृष्णता ।
दृढता लोलचर्मणास्तस्यैव जायते पुनः ।
स्थितं पक्वफलोदरे पक्वतां हि विनाशयेत् ॥
लौहमेतत् सुधातुल्यं मर्त्त्येय दीर्घायुःसंप्रदम् ।
मात्रैका हि ग्रहीतव्या चैकविंशसमान्तरे ॥

Thirty-fourth process.

(Sudha Sagara Lauham.)

Iron is to be rubbed during certain part of the day with the juice of the leaves of any tree, herb, or grass. It is then to be dried by the sun and then heated by putam at night. This process is to be performed for 4380 days, juice of leaves of a new tree, herb, or grass being used each of

these days. In other words, the iron is to be heated by putam for 4380 times, after having been rubbed each time with the juice of the leaves of a tree, herb, or grass, which is to be used in this way for one day only, so that 4380 different kinds of vegetable juices are required to complete the process. The tree, herb, or grass which has once been used must not be used for the second time. The iron, thus incinerated, has the property of re-juvenating an old man. It causes the growth of new teeth in place of fallen ones, even in old age; turns grey hair black; and makes the skin of an old man as tight as in youth. Ripe fruit turns green, if a grain of this iron is kept for a few hours inside the former. One dose of this medicine is to be taken once in every 20 years.

लौहभस्मनः परीक्षा ।

मध्वाज्यमृतलौहं च रूप्यसंपुटके क्षिपेत् ।
रुद्ध्वा ध्मातं सुसंग्राह्यम् रौप्यकं पूर्वमानकम् ।
तदा लौहं मृतं विद्यान्निरुत्थं ज्ञायते च तत् ॥
रूप्यस्य पूर्वमानस्य ह्रासेन ज्ञायतेऽमृतम् ।
उत्थितं च विजानीयान् मारयेत् तत् पुनर्भिषक् ॥

Test of incinerated iron.

Incinerated iron, mixed with honey and clarified butter, is to be confined in a silver samputam, and subjected to heat by putam. If in so doing, the quantity of the silver does not undergo any diminu-

tion, the ashes of the iron are to be considered actually incinerated and incapable of being restored to their original condition of un-incinerated iron. In case, the silver is found short of the original quantity, the iron is to be considered un-incinerated and capable of being restored to its original condition. In that case, it is to be incinerated again.

उत्थितलौहस्य निरुत्थीकरणम् ।

(१)

अनिरुत्थं मृतं लौहं पक्तव्यं मित्रपञ्चकैः ।
यद्येवं स्यान्निरुत्थञ्च सेव्यं वारितरं हि तत् ॥
मधु सर्पिस्तथा गुंजा टङ्कनं गुग्गुलुस्तथा ।
मित्रपञ्चकमेतत् तु गणितं धातुमेलने ॥

How to deprive the ashes of iron of the power of being restored to their original condition.

(1)

Ashes of iron, which can be restored to their original state, should be brought to a state in which it is impossible for them to be so restored, and this may be done, if the ashes are roasted with the panchamritam, *viz.* honey, clarified butter, gunja, tankanam, and guggulu.

(२)

गोघृतं गन्धकं लौहं तप्तखल्वे विमर्द्दयेत् ।
दिनैकं कन्यकाद्रावे रुद्ध्वा गजपुटे पचेत् ।
इत्येवं सर्व्वलोहानां कर्त्तव्यं स्यान्निरुत्थितम् ॥

(2)

Ashes of iron are to be rubbed in a hot mortar with cow's ghee, sulphur, and juice of kanya for one day and then heated by *Gajaputam*, resulting in the ashes being incapable of being restored to the state of original iron.

अथ मृतलौहस्यामृतीकरणम् ।

(१)

तोयाष्टभागशेषेण त्रिफलापलपञ्चकम् ।
घृतं क्वाथस्य तुल्यं स्याच्च चूर्णं तुल्यं मृतायसः ॥
पाचयेत् ताम्रपात्रे च लौहदर्व्या विचालयेत् ।
मृद्वग्निना पचेत् तावद् यावत् सर्व्वं हि जीर्य्यते ॥
लौहतुल्या शिवा योज्या सुपक्वमेव तारयेत् ।
योगवाहमिदं ख्यातं मृतलौहं महामृतम् ॥

Nectarization of incinerated iron.

(1)

In a copper cauldron, heated by a mild fire, five palas of iron are to be roasted with an equal quantity of clarified butter and the same quantity of decoction of triphala (prepared by boiling five palas of triphala fruits with 40 palas of water, reduced by heating to 5 palas), the whole thing being turned by an iron ladle till the iron is completely roasted. It is then to be again roasted with an equal quantity of powdered haritaki.

(२)

गुडस्य कुडवे पक्कं लौहभस्म पलान्वितम् ।
कोलप्रमानं रोगेषु तच्च योगेन योजयेत् ॥

(2)

One pala of incinerated iron is to be mixed by heat with four palas of iron and made into pills of the size of a plum fruit. One such pill may be used in diseases with suitable accompaniments.

(३)

घृतं तुल्यं मृतं लौहं लौहपात्रे स्थितं पचेत् ।
जीर्णे घृते समादाय योगवाहं प्रयोजयेत् ॥

(3)

Equal quantities of incinerated iron and clarified butter are to be roasted in an iron pot till the latter is dried up altogether. The iron, thus prepared, is a joga-bahi, *i.e.* a thing which increases the property of any other thing with which it is mixed.

रसायनप्रयोगे लौहस्य संस्कारविशेषः ।

(४)

घृतमधुगुञ्जाटंकसमं लौहभस्म मर्द्दयेच्च विचक्षणः ।
धमेद्दृढो पुनर्लौहं तदा योज्यं रसायने ॥

(4)

Ashes of iron become especially fit for being used in medicines meant for preventing and curing senility, if they are rubbed with clarified butter, honey, gunja, and tankanam.

(५)

लौहारकूटताम्रकटाहे दृढमृन्मये वा प्रणम्य शिवम् ।
भस्मायः पचेदचपलः काष्ठेन्धनवह्निना मृदुना ॥
निक्षिप्य त्रिफलाजलमृदितं यत्तद् घृतञ्च दुग्धञ्च ।
सञ्चाल्य लौहमय्या दर्व्या लग्नं समुत्पाट्य ॥
मृदुमध्यमखरभावैः पाकस्त्रिविधोऽत्र वक्ष्यते पुंसाम् ।
पित्तसमीरणश्लेष्मप्रकृतीनां मध्यमस्य समः ॥
त्रिविधोऽपि पाक ईदृक् सर्वेषां गुणकृदेव न तु विफलः ।
प्रकृतिविशेषे सूक्ष्मौ गुणदोषौ जनंयतोत्यल्पम् ॥
अभ्यक्तदर्विलौहं सुखदुःखस्खलनयोगि मृदुमध्यम् ।
उज्झितदर्वि खरं परिभाषन्ते केचिदाचार्य्याः ।
अन्ये विहीनदर्वीप्रलेपमीषत् खराकृति ब्रुवते ॥
मृदुमध्यमर्द्धचूर्णं सिकतापुञ्जोपमं तु खरम् ।
विज्ञाय पाकमेवं द्रागवतार्य्य क्षितौ क्षणान् कियतः ॥
विश्राम्य तत्र लौहे त्रिफलादेः प्रक्षिपेच्च् चूर्णम् ।
यदि कर्पूरप्राप्तिर्भवति ततो विगलिते तदुष्णत्वे
चूर्णीकृतमनुरूपं क्षिपेत् तत्तु प्रयत्नतः ।
पक्कं तदश्मसारं सुचिरं घृतस्थितं
गोदोहनादिभाण्डे लौहाभावे संरक्षणीयम् ।

यदि तु परिप्लुतिहेतौ घृतमोक्तेताधिकं ततोऽन्यस्मिन्
भाण्डे निधाय रक्षेद् भाव्युपयोगो ह्यनेन महान् ॥
अयसि विरुक्षीभूते स्नेहस्त्रिफलाघृतेन संपाद्यः ।
एतत्तत्तो गुणोत्तरमित्यमुनैव स्नेहनीयं तत् ।
अत्यन्तकफप्रकृतेर्भक्षणमयसोऽमुनैव शंसन्ति ।
केवलमपीदमशितं जनयत्ययसोगुणान् कियतः ॥
अथवा वर्णितविधिमारितं कृष्णाभ्रमादाय ।
लोहचूर्णचतुर्थार्द्धसमद्वित्रिचतुःपञ्चगुणभागम् ॥
प्रक्षिप्यायः प्रागवत् पचेदुभाभ्यां भवेद् रजोयावत् ।
तन्मानानुकृतेः स्मृतितः स्यात् त्रिफलादिद्रव्य-
परिमाणम् ।
इदमाप्यायकमिदमतिपित्तनुदिदमेव कान्तिबल-
जननम् ।
स्तभ्नाति तृट्क्षुधौ परमधिकाधिकमात्रया युक्तम् ।
नानाविधरुक् शान्त्यै कान्त्यै पुष्ट्यै च शिवं
समभ्यर्च्य ।
सुविशुद्धेऽहनि पुण्ये तदमृतमादाय लौहाख्यम् ।
दशकृष्णलपरिमाणं शक्तिवयोभेदमाकलय्य पुनः ।
सममसृणामलपात्रे लौहे लौहेन मर्दयेच्च पुनः ।
दत्त्वा मध्वनुरूपं तदनु घृतं योजयन्नाधिकम् ॥

ओँ अमृतेन्द्रं भक्षयामि नमः स्वाहेति
मन्त्रमुच्चार्य्य भक्षनीयं तत् ।
जग्ध्वा तदमृतसारं नीरं वा क्षीरमेवानुपिबेत् ।
कान्तक्रामकममलं सर्जरसं पिबेदनु ।
आचम्य च ताम्बूलं घनसाररसहितमुपयोज्यम् ॥

(5)

Incinerated iron is to be placed with decoction of triphala, milk, and clarified butter, in a cauldron made of iron, brass or copper, heated by a very mild fire made of wood, an iron ladle being used for turning the contents of the cauldron every now and then. This preparation may be of three kinds, *viz.* mild, medium, and dry. They are especially beneficial to patients having an excess of pittam, vayu, and kapha, respectively. One having an equilibrium of the doshas (vayu, pittam, and kapha) should use a preparation which is also neither mild nor dry *i.e.* of medium softness. Each of these three different kinds of preparations, although especially efficacious to patients of especial temperaments, is beneficial, at least to a certain extent, to patients in general, irrespective of temperaments. A mild preparation in this case means that in which the iron sticking to the ladle can be separated easily; a medium preparation is that in which the iron paste sticking to the ladle can be separated with difficulty; a dry preparation in this case is that in which the

iron paste is so dried as not to attach itself to the ladle altogether or to do it only to a slight extent. The mild and the medium are partially powdered, whereas the dry preparation of iron is in a state of sands. On the completion of the preparation of the iron the cauldron is to be got down quickly from the oven, and after a few minutes, powdered triphala, etc. may be mixed with the product. Some camphor may also be mixed with it, when the product is sufficiently cooled. The iron, thus prepared, is to be very finely powdered, and kept with a sufficient quantity of clarified butter in an iron pot or in an earthen vessel previously used for keeping milk. In case, the clarified butter is found to be much in excess of the quantity required to keep the iron soft, a quantity of the former may be taken out and kept in a separate pot. This ghee is very useful. It may be used to soften the iron preparation in case it loses its softness. A patient having an abnormal excess of kapha should take iron mixed with this ghee, which, even if taken alone, produces a part of the effects which are produced by iron prepared in the aforesaid way.

The incinerated iron may also be roasted in the afore-said manner, after having been mixed with decoction of triphala, clarified butter, milk, and one fourth or half or an equal or double or triple or four fold or five fold its quantity of powdered black mica, duly incinerated (see vol. II). The powder, thus prepared, is soothing to the system, destroyer of all abnormal excess of pittam, and is a giver of strength

and beauty. If taken in doses gradually increased to a large quantity every day, it does away with thirst and hunger altogether without impairing the strength and longevity of the latter. After making due obeisance to God, the medicine should be begun to be taken on an auspicious day, in doses of ten ractis a day (a dose which is modifiable having regard to the age and strength of the patient), which should be rubbed with honey and ghee in an iron mortar by an iron rod. The following mantra is to be uttered at the time of taking the medicine :—"Om amritendra bhakshayami nama swaha." After taking the medicine, a little of water or milk is to be taken. A little after that, juice or decoction of nagaramusta, mixed with pure rala or exudation of a sarja tree, should be taken.

लौहादीनां सेवनमात्रा ।

गुञ्जामात्रं रसेन्द्रस्य हेम्नो भस्म च भक्षयेत् ।
तारं त्रिगुञ्जकं सेव्यं ताम्रभस्म द्विगुञ्जकम् ॥
लौहाभ्रनागवङ्गानां यशोदस्य तथान्येषाम् ।
धातूनां ज्ञायते मात्रा षड्गुञ्जाप्रमिता खलु ॥
कांस्यपित्तलयोर्भस्म भक्षयेत् ताम्रभस्मवत् ।
वज्रं यवद्वयमितं तालकं यवसप्तकम् ।
ततो बुद्ध्या भिषग् दद्यान् मात्रावित्
क्षेत्रज्ञानतः ॥

Doses.

The following are the doses in which mercury, etc. are generally given :—mercury, one gunja a day ; incinerated gold—one gunja a day ; incinerated silver, 3 gunjas a day ; incinerated copper, 2 gunjas a day ; iron, mica, lead, tin, zinc, and other metals (each incinerated), six gunjas a day ; incinerated bell-metal and brass—two gunjas a day ; incinerated diamond, 2 javas a day ; purified or incinerated haritalam, seven javas a day. In especial cases, the physicians, having regard to the age and constitution of the patient, should use their own discretion in the matter of doses.

लौहभस्मभक्षणमंत्रः ।

ॐ अमृतेन्द्रं भक्षयामि नमः स्वाहा ।

लौहभस्मानुपानम् ।

(१)

शूले हिङ्गु घृतान्वितं मधुयुतं कृष्णा पुराणज्वरे ।
वाते साज्यरसोनकः श्वसनके चौद्रान्वितं त्र्यूषणम् ॥
शीते व्याललतादलं समरिचं मेहे वरा सोपला ।
दोषाणां त्रितयेऽनुपानमुदितं सचौद्रमार्द्रोदकम् ॥
घृतेन वातके देयं मधुना पित्तजे ज्वरे ।
श्लेष्मपित्ते चार्द्रकेन निर्गुण्ड्या शीतवातके ॥
शुण्ठीं वाते सितां पित्ते कफे कृष्णां प्रदापयेत् ।
सन्धिरोगे त्रिजातकं प्रोक्तं लौहानुपानकम् ॥

Anupanas or accompaniments of iron.

(1)

Incinerated iron is to be taken with hingu (purified by being fried with ghee) and honey in colic ; with powdered pippali in chronic fever (such as malaria, kalazar, etc.) ; with ghee and garlic juice in rheumatism, paralysis, and other diseases due to an excess of vayu ; with honey and trikatu in asthma ; with the juice of brischikali mixed with powdered maricha in coldness ; with triphala and sugar-candy in spermatorrhoea ; with honey and ginger juice in diseases due to an excess of the three doshas ; with clarified butter in fever due to an excess of vayu ; with honey only in fever due to an excess of pittam ; with the juice of ardraka in diseases due to an excess of kapha and pittam ; with the juice of nirgundi in shivering due to an excess of vayu ; with powdered shunthi in diseases due to an excess of vayu ; with sugar in pittam, with pippali in kapha ; and with trijatakam in diseases affecting bone joints.

Foot note :—The general rule with regard to the taking of a mineral drug, either in the form of powdered ashes or in the form of a pill, is this :—It is first of all to be rubbed in a small stone mortar with a little of honey (even when there is no mention of it, unless it is explicitly prohibited or considered harmful in a particular case) and then again rubbed with the anupanam or accompaniment prescribed. When the drug is thus sufficiently rubbed, it is to be taken by licking or drinking, as the case may be.

(२)

वङ्गं वङ्गार्द्धमानं च यथायोगेन योजयेत् ।
वरया सह लौहं हि वलीपलितनाशनम् ॥
कज्ज्वलीमधुकृष्णाभ्यां श्लेष्मरोगनिवारणम् ।
खण्डया सचतुर्जातं रक्तपित्तविनाशनम् ॥
पुनर्णवायुतक्षीरैर्बलवृद्धिकरं परम् ।
पुनर्णवारसेनैव पाण्डुरोगनिसूदनम् ॥
सनिशं भसितं लौहं पिप्पल्या मधुना सह ।
विंशतिं च प्रमेहानां नाशयेन् नात्र संशयः ॥

(2)

Incinerated iron, in doses of four and half ractis, is to be taken with the following anupanams:—with triphala in senile decay; with kajvali (equal quantity of sulphur and mercury, turned into a black powder), honey, and pippali in diseases due to an excess of phlegm; with khanda gurh mixed with chaturjata in ractapittam; with cow's milk mixed with the juice of punarnava for increasing strength and vigour; with the juice of punarnava in anemia; with the juice of haridra and powdered pippali, mixed with honey, in 20 different kinds of spermatorrhoea including gonorrhoea.

(३)

शिलाजतुयुतं लौहं मूत्रकृच्छ्रनिवारणम् ।
वासकपिप्पलीद्राक्षालौहानां मधुना सह ॥

गुटिकां भक्षयेत् प्रातः पञ्चकासनिवृत्तये ।
ताम्बुलरससंयुक्तं भक्षयेल् लौहमुत्तमम् ॥
अग्निदीप्तिकरं वृष्यं देहकान्तिविवर्द्धनम् ।
त्रिफलामधुसंयुक्तं सर्व्वरोगेषु योजयेत् ॥
पथ्यासितालौहभस्म यथोक्तगुणदं भवेत् ।
किमत्र बहुनोक्तेन देहलोहकरं परम् ॥

(3)

Incinerated iron may be used with shilajatu in gleet and stricture; with basaka, pippali, draksha, and honey (all rubbed together) in all sorts of cough; with the juice of betel leaves for increasing the power of digestion, nutrition, and physical beauty; with triphala and honey in all sorts of diseases; with triphala and sugar for increase of strength.

लौहसेवने पथ्यम् ।

लावकस्तित्तिरिर्गोधा मयूरशशकादयः ।
वटकः कलविंकश्च वर्त्तिश्च हरितालकः ॥*
श्येनकश्च बृहल्लावो वनविस्किरकादयः ।
हितकरमृगादीनां मांसं जांगलकं शुभम् ॥
मद्गुरो रोहितः श्रेष्ठः शकुलश्च विशेषतः ।
मत्स्यराजा इमे प्रोक्ताः हितमत्स्याश्च ये नवाः ।

* कलविंकश्चटकः ।

प्रशस्तं पापिताफलं पटोलं डिंडिसी तथा ।
प्रलम्बाभीरुवेत्राग्रं ताड़कं तण्डुलीयकम् ॥
वास्तुकं धान्यशाकं च स्वर्णालुकपुनर्णवम् ।
नारिकेलं च खर्ज्जुरं दाड़िमं लवलीफलम् ॥
शृंगाटकं च पक्काम्रं द्राक्षालताफलानि च ।
जातीकोषं लवंगं च पूगं ताम्बूलपत्रकम् ॥

Dietary.

The following dietary is salutary for the person who takes iron :—
laba (a migratory bird—a sort of a quail), tittiri (the francoline partridge), godha (iguana), peacock, hare, bataka (a bird, popularly called, batkal), kalabinka or chataka (sparrow), barti (a bird popularly called, 'bater'), haritala (green partridge), hawk, big laba, all sorts of deer ; fresh and wholesome fish, such as, madgura, rohita, and shakula ; vegetables like papita, patola, dindisi, eatable sprout arising inside a palm fruit, shatavari, soft blossoms of a betra plant, the soft portion inside the uppermost part of a palm tree, tanduliyaka, bastu, leaves of dhanya plant, karnalu, punarnava, cocoanut, date fruit, pomegranates, lavali fruit, shringataka, ripe and sweet mango, grapes, jatiphala, lavanga, betel-nut, and betel leaves.

लौहसेवने अपथ्यम् ।

(१)

नाश्नीयाल्लकुचं कोलं कर्कन्धुं वदराणि च ।
जम्वीरं बीजपूरञ्च करमर्दकतिन्तिड़ीम् ॥
आनूपानि च मांसानि क्रकरं पुण्ड्रकादिकं ।
हंससारसदात्युहमद्गुकाकवलाहकान् ॥
माषकन्दकरीराणि चनकं च कलम्बकम् ।
कुष्माण्डकंच कर्कोटिं केवुकञ्च विशेषतः ॥
कदलीं कालशाकञ्च कशेरुं कर्कटीं तथा ।
विदलानि च सर्व्वाणि ककारादींश्च वर्ज्जयेत् ॥

Prohibitions.

(1)

The following are to be avoided dy one who takes iron :—lakucha, kola, karkandhu, badara, lemon fruit, vijapura, karamarda, tintiri, meat of animals other than those enumerated in page 84, karkata bird, pundraka, goose, swan, water crow, madgu, crow, crane, masha gram, tubers of all kinds (such as potato, radish, onion, etc.), karira (shoot of a bamboo, and a thorny plant of that name), chanaka gram, kadamba fruit, kushmanda, karkoti, kebuka, banana fruit, pot herbs, kasheru, karkati, and all sorts of pulses.

(२)

कुष्माण्डं तिलतैलं च रसोनं राजिकां तथा ।
मद्यमम्लरसं चैव त्यजेत् लौहस्य सेवकः ॥
अहितमत्स्यवार्त्ताकं माषं च कारवेल्लकम् ।
व्यायामं सर्व्वसन्धानमासवञ्च सदा त्यजेत् ॥
अत्युपवेशनं जह्यात् श्रमं चैवातिभाषणम् ।
स्नानपानाशनादीनामाधिक्यं शीतवातयोः ॥
अकालभोजनञ्चैव विरुद्धाशनमेव हि ।
दिवास्वापं तथा नक्तं जागरणं सदा त्यजेत् ॥
वातपित्तकृतः सर्वान् कट्वम्लतिक्ततुवरान् ।
तत्त्वग्णनाशहेतूंश्च मैथुनकोपसंश्रमान् ।
मारकं रसलोहानां सर्व्वथा हि परित्यजेत् ॥

(2)

One who takes iron should avoid the following:—kushmanda, tila oil, rasona, raji, wine, sour things, bad fish, jeera, vartaku, masha gram, karbella, physical exercise, all sorts of fermented things, asava, sitting for a long time, physical exertion, excess of talking, excess of bathing, drinking, eating, and exposure to coldness and wind, eating at unusual times, eating articles of food stuff which, if taken with the same meal produce injurious effects (such as milk with fish, meat, or sours); sleeping in day time; keeping late

hours at night; all things having the property of increasing vayu and pittam; things which are pungent, sour, bitter, and astringent; sexual indulgence; anger; physical exertion; and all things calculated to kill mercury and the metals.

लोहव्यापन्नाशनं चूर्णम् ।

जीर्णे लोहे तु पतति चूर्णं भुञ्जीत सिद्धिसाराख्यम् ।
लोहव्यापन् नाशयति तद् वर्द्धयति जाठरं वह्निम् ॥

Remedy of evils due to irregularities in taking metals.

When incinerated iron (or any other metal) is digested in the stomach, a dose of the powder named siddhisara (described below) should be taken in order to counteract any evil arising out of irregularities committed while taking the iron (or any other metallic preparation).

सिद्धिसारः ।

पथ्यासैन्धवशुण्ठीमागधिकानां पृथक् समं भागम् ।
त्रिवृताभागौ निम्बुभाव्यं स्यात् सिद्धिसाराख्यम् ॥
काले मलप्रवृत्तिर्लाघवमुदरे विशुद्धिरुद्गारे ।
अङ्गेषु नावसादो मनःप्रसादोऽस्य परिपाके ।
रद्भिर्द्वादशकादूर्द्ध्वं वृद्धिरस्य भयप्रदा ॥

Siddhi sara.

Powders of haritaki, saindhava, shunthi, white jeera—each equal in quantity ; and trivrit, double the quantity of each of the above-mentioned, should be subjected to bhavana with the juice of lemon. Dose—1 racti, to be gradually increased to 12 ractis, which should not exceed on any account. This medicine causes movement of the bowels in due time, lightness of the stomach, freedom of the belching (of wind from the stomach) from acidity and toxin, comforts of the limbs, and cheerfulness of the mind.

अपक्कलौहस्य अवगुणः ।

अल्पौषधिस्तोकपुटहीनगन्धकपारदैः ।
पक्कं हि लौहजं चूर्णमायुःक्षयकरं परम् ॥

Evil effects of taking iron not properly incinerated.

Iron roasted with too little in quantity of the liquids prescribed, or by a fewer than the prescribed number of putams, or by being rubbed with sulphur or mercury of inferior quality (i.e. not properly purified), is injurious, and serves to shorten the longevity of the man who takes it.

अशुद्धलौहसेवनजनितविकारानां शान्तिः ।

(१)

मुनिरसपिष्ठविड़ङ्गं मुनिरसलीढ़ं चिरस्थितं घर्मे ।
द्रावयति लौहदोषान् वह्निर्नवनीतपिण्डमिव ॥

Remedy of the evil effects of iron not properly incinerated.

(1)

Evil effects of impure iron are removed, if one takes biranga, previously rubbed with the juice of vasaka, and exposed for a long time to the heat of the sun, mixed with a sufficient quantity of the juice of vasaka.

(२)

आरग्वधस्य मज्जया रेचनं कीटशान्तये ।
भवेद्यतिसारश्च पीत्वा दुग्धं तु तं जयेत् ॥
यदि लौहविकारेण उदरे शूलसंभवः ।
तदार्द्रकविड़ङ्गं तु विड़ङ्गरससंयुतम् ।
पिबेद्वा खण्डमधुना एलाचूर्णं दिनत्रयम् ॥

(2)

Purgation by the oily part of aragbadha is to be resorted to for the purpose of destroying worms (growing from the use of iron, not incinerated with mercury). In case of diarrhoea being caused by the purgation, it is to be cured by the drinking of milk. Colic in the stomach, due to use of bad iron, may be cured by using ginger and biranga, taken for 3 days with the juice of biranga, or by taking for 3 days powdered ela mixed with khanda gurh and honey.

लौहस्य द्रावणम् ।

(१)

देवदालीरसै र्भाव्यं गन्धकं दिनसप्तकम् । *
तेन प्रवापमात्रेण लौहं तिष्ठति सूतवत् ॥

Liquefaction of iron.

(1)

Sulphur is to be subjected to bhavana with the juice of devadali for seven days. This sulphur, thrown upon iron, melted by fire, makes the iron resemble mercury (even after the heat is discontinued).

(२)

सुरदालिभवं भस्म नरमूत्रेण गालितम् ।
त्रिसप्तवारं तत्क्षारं वापेत् कान्ते द्रुतिर्भवेत् ॥

(2)

A kshara or alkali is to be prepared by dissolving the ashes of devadali with human urine, filtering it for 21 times and then drying it up by heat. A little of this alkali, if thrown upon melted kanta iron, keeps the latter in a liquefied state even after the heat is removed.

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* द्रुते द्रव्यान्तरक्षेपो लौहादौ क्रियते हि यत् ।
स प्रवापः प्रतीवापस्तदेवाच्छादनं मतम् ॥

(३)

गन्धकं कान्तपाषाणं चूर्णयित्वा समं समम् ।
द्रुते लौहे प्रतीवापो देयो लौहाष्टकं द्रवेत् ॥

(3)

Eight different kinds of iron can be kept in a state of liquefaction, even after the removal of heat, if equal quantities of powdered sulphur and kanta iron are put upon them, while in a melted condition.

अथ मण्डूरम् (लौहकिट्टम्) ।

सिंहानिका च सिंहानं लौहकिट्टं च मण्डूरम् ।
प्रतापिताद् घनाहताल् लौहाच् च्युतं मलं हि तत् ॥
यल्लौहे यद्गुणं प्रोक्तं तत् किट्टे तद्गुणांशकम् ।
तस्मात् सर्वत्र मण्डूरं रोगशान्त्यै प्रयोजयेत् ॥
किट्टाद् दशगुणं मुण्डं मुण्डात् तीक्ष्णं शतोन्मितम् ।
तीक्ष्णाल् लक्षगुणं कान्तं भक्षणात् कुरुते नृणाम् ॥
तस्मात् कान्तं सदा सेव्यं जराव्याधिहरं परम् ।
कान्ताभावे प्रदातव्यं स्वर्णं वा रूप्यमेव वा ।

Mandura.

If iron is heated red hot, and hammered, small pieces throw themselves out of it, and scatter themselves all round. These particles of iron are called mandura. The mandura of a particular

iron possesses a part of the properties of the latter. Mandura also may therefore be used in medicines. Munda iron is ten times as efficacious as mandura. Tikshna iron is hundred times as efficacious as munda, and kanta is hundred thousand times as efficacious as tikshna. Kanta iron should therefore be used for the purpose of destroying diseases and senility. In the absence of kanta iron, gold or silver is to serve as a substitute.

मण्डूरस्य भेदाः ।

ईषच्छवि गुरु स्निग्धं मुण्डकिट्टं जगुर्बुधाः ।
भिन्नांजनप्रभं यत् तु विशेषाद् गुरु निर्व्रणम् ॥
निः कोटरं च विज्ञेयं तीक्ष्णकिट्टं मनीषिभिः ।
पिंगं रुक्षं गुरुतरं यदर्धमवकोटरम् ॥
छिन्ने च रजतच्छायं तत् किट्टं कान्तलोहजम् ॥

Varieties of mandura.

Mandura from munda iron is slightly coloured, heavy, and soft; that from tikshna iron is like a collyrium of mixed ingredients, is much heavy, and has a smooth surface. The mandura which comes out of kanta iron is of grey colour, coarse, heavier than other manduras, with half its surface devoid of hollows, and it presents a sectional surface as glazy as silver, when cut into two pieces.

मण्डूरस्य व्यवहारयोग्यता ।

(१)

अकोटरं गुरु स्निग्धं दृढं शतसमाधिकम् ।
चिरोत्थितजनस्थाने संस्थितं किट्टमाहरेत् ॥

Fitness of mandura for use in medicines.

(1)

The mandura which should be used in medicines should be of the following description :—It is devoid of hollows, heavy, soothing, strong, of more than a hundred years' standing, and collected from an old village.

(२)

शतोर्द्ध्वमुत्तमं किट्टं मध्यश्चाशीतिवार्षिकम् ।
अधमं षष्टिवर्षीयं ततोहीनं विषोपमम् ॥

(2)

Mandura of over hundred years old is the best; that of over 80 years is of moderate efficacy, and that of sixty years' standing is the least efficacious. Mandura less old than the last-mentioned is like poison and should be avoided for medicinal purposes.

मण्डूरस्य शोधनमारणम् ।

प्रथमोविधिः ।

अक्षाङ्गारैर्धमेत् किट्टं लोहजं तद् गवां जले ।
निक्षिपेदक्षपात्रस्थे सप्तवारं प्रयत्नतः ॥
चूर्णयित्वा ततः क्वाथैर्द्विगुणैस्त्रिफलोद्भवैः ॥
आलोड्य च धमेद् वह्नौ मण्डूरं जायते वरम् ॥

Incineration of mandura.

First process.

Manduram is to be heated by means of char-coal prepared from bibhitaki wood, and then immersed in cow's urine contained in a pot made of the same wood. It is then to be powdered very fine and roasted with double its quantity of decoction of triphala (by being boiled in a cauldron over fire).

द्वितीयोविधिः ।

गोमूत्रैस्त्रिफला क्वाथ्या तत्क्वाथैः सेचयेच्छनैः ।
लौहकिट्टं सुतप्तं तु यावज्जीर्यति तत् स्वयम् ॥

Second process

A decoction of triphala is to be prepared by boiling it with cow's urine. Mandura, heated red hot, is to be immersed in this liquid. Repetition of this process leads to the incineration of the mandura.

तृतीयोविधिः ।

मण्डूरं चूर्णितं श्लक्ष्णं गोमूत्रेऽष्टगुणे पचेत् ।
चूर्णितं पुनरेव तत् स्वकार्येषु नियोजयेत् ॥

Third process

Mandura is to be powdered very fine and then roasted with eight times its weight of cow's urine. When sufficiently roasted, it is to be powdered again and used where necessary.

मण्डूरस्य व्यवहारः ।

त्र्यूषणं त्रिफला मुस्ता विड़ंगं चव्यचित्रकम् ।
दार्वी ग्रन्थि देवदारु तुल्यं तुल्यं विचूर्णयेत् ॥

प्रत्येकं किट्टसंतुल्यं तेन सह विमिश्रयेत् ।
भक्षयेत् कोलमात्रं तु जीर्णान्ते तक्रभोजनम् ॥
पाण्डुशोफहलीमं च उरुस्तम्भं च कामलाम् ।
अर्शांसि हन्ति सत्वरं हंसमण्डूरकाह्वयम् ॥

Use of mandura.

Incinerated mandura, mixed with an equal quantity of each of the following, and taken in doses of one kola (all combined) a day, cures pandu (anemia), shotha (dropsy), halima (jaundice of the worst type), urustambha (carbuncle in the thighs), kamala (jaundice), and arsha (piles) :—trikatu, triphala, musta, biranga, chavya, chitraka, darvi, granthi, and deva-daru. Mandura, thus used, is called the hansa-mandura. Butter-milk should be drunk after the medicine appears to have been digested in the stomach.

मण्डूरस्य द्रावणम् ।

मुनिरसपिष्टं विड़ंगं मुनिरसलीढ़ं चिरस्थितं घर्म्मे ।
द्रावयति लौहकिट्टं वह्निर्नवनीतपिण्डमिव ॥

Liquefaction of mandura.

Rust of iron is liquefied and assumes the shape of butter, if it is immersed in a liquid paste, made of biranga pestled with the juice of agastya and dissolved in the same liquid, and exposed for a long time to the heat of the sun.

द्वितोयोऽध्यायः ।

CHAPTER II.

अथ यशोदम् ।

रसकस्य विजानीयाद् यशोदं सत्वमेव हि । ❀
तदेव खलु वैद्यानां यशोदं धीमतां परम् ॥

Jasoda (Zinc).

Jasoda is the essence of rasaka or calamine (see page 125, Vol II). Literally, it means a thing which helps the earning of fame. It is really a thing which enables a learned physician to earn reputation.

अस्य गुणाः ।

यशोदं तुवरं तिक्तं शीतलं कफपित्तहृत् ।
चक्षुष्यं परमं मेहपाण्डुश्वासविनाशनम् ॥

Its properties.

Jasoda is astringent, bitter, cool, pacifier of kapha and pittma, beneficial to eye-sight, and destroyer of spermatorrhoea, gonorrhoea, jaundice, and asthma.

❀ द्वितीयखण्डे १२५ पृष्ठं द्रष्टव्यम् ।

यशोदस्य शोधनम् ।

प्रथमोविधिः ।

यशोदमग्निविद्रुतं दुग्धमध्ये तु ढालयेत् ।
एकविंशतिवारैश्च ततोऽयं शुद्धिमाप्नुयात् ॥

Purification of Jasoda.

First process.

Jasoda is purified, if it is immersed into milk for twenty one times, after it is melted each time.

द्वितीयोविधिः ।

द्वितीयखण्डे २४२ पृष्ठे स्वर्णशोधनप्रकरणे तृतीयोविधिः द्रष्टव्यः ।

Second process.

See Process No. 3, page 243, Vol. II.

यशोदस्य मारणम् ।

प्रथमोविधिः ।

द्वितीयखण्डे २४७ पृष्ठे स्वर्णमारणप्रकरणे चतुर्थोविधि द्रष्टव्यः ।

Incineration of Jasoda.

First process.

See Process No. 4, page 247, Vol. II.

द्वितीयोविधिः ।

यशोदं लौहजे पात्रे द्रावयित्वा पुनर्धमेत् ।
सुतप्तेऽस्मिन् क्षिपेन् निम्बपत्रमेकं तदुपरि ॥
घर्षणाल्लौहदण्डेन वहिरुत्तिष्ठति ध्रुवम् ।
यथा यथा भवेद् घृष्टिर्भस्मीभावस्तथा तथा ॥

भस्मीभूतं पृथक् कृत्वा पुनः पत्रेण घर्षयेत् ।
घृष्टव्यं यत्नतस्तावद् यावत् सर्वं न हन्यते ।
क्षालितं तद् यथाविधिपत्रभूत्या विमुच्यते ॥
नेत्रयोगेषु सर्वेषु भस्मीभूतमिदं शुभम् ।
भक्षणे न प्रशस्तं तदंजनार्थं प्रयोजयेत् ॥

Second process.

Zinc is to be kept in an iron pot over fire, and heated highly, even after it is melted. A leaf of nimba tree is then to be thrown upon the molten zinc, which is to be rubbed with the leaf by means of an iron rod. This is followed by the rise of flames upon the molten zinc and the incineration of a part of the metal at the spot where the rubbing is carried on. Fresh nimba leaves are to be applied and the rubbing is to be continued. Wherever there is rubbing, there is incineration. The part which is incinerated may be sifted out and the remaining part of the zinc again incinerated in the same way. The powder, thus prepared, should be freed from the ashes of the nimba leaves by being washed off with water. Zinc, thus incinerated, is found to be beneficial to eye-sight and may be used as a collyrium. It is not commendable for internal use.

तृतीयोविधिः ।

यशोदं तच्चतुर्थांशपारदगन्धकान्वितम् ।
मर्दयेत् खल्वके सम्यक् कन्यानिम्बुरसैः पृथक् ॥

लेपयेत् तेन पत्राणि गजाह्वे पाचयेत् पुटे ।
एकेनैव पुटेनैवं यशोदं म्रियते खलु ॥

Third process.

Fine leaves of zinc are incinerated, if they are subjected to heat by Gajaputam for once only, after having been smeared with a paste made of kajvali (mercury and sulphur, combined in equal parts), one fourth in quantity of the zinc, rubbed separately with the juices of kanya and nimbu (lemon).

यशोदमारणस्य विध्यन्तराणि ।

नागवङ्गप्रकारेण यशोदमपि मार्य्यते ।
तयोरेव प्रकारेण शोधनीयमपि हि तत् ॥*

Zinc may also be purified and incinerated in the same manner as vanga (tin) and sisaka (lead) *

यशोदस्यानुपानानि ।

खर्जुरतंडुलीहिमै रक्तातिसारनाशकम् ।*
विनाशयेज् ज्वरं चैव यशोदं मायुजं खलु ॥
यमानिकालवंगाभ्यां युतं शीतज्वरं जयेत् ।
शर्कराजाजिसंयुक्तमतिसारं वमिं तथा ॥
पुराणघृतसंयुक्तं नेत्रहितकरं परम् ॥

* अग्रे वङ्गनागप्रकरणं द्रष्टव्यम् ।
* See page 102.

यशोदं प्रमेहं हन्ति ताम्बूलस्वरसेन हि ।
अग्निमन्थेनाग्निकरं त्रिसुगन्धे त्रिदोषहृत् ॥

Accompaniments of Jasoda.

Jasoda cures dysentery, if taken with a *hima kashayam* (decoction prepared without the application of heat) of kharjura (dates), and tanduliya roots. If taken in this way, it also cures fever due to an excess of pittam. It cures fever accompanied with a sensation of coldness, if taken with jamani and lavanga. In diarrhoea and vomiting it should be used with sugar and jeera. It is beneficial to eyesight, if used as a collyrium with old ghee (clarified butter). It cures spermatorrhoea and gonorrhoea, if taken with the juice of betel leaves. It increases power of digestion, if taken with the juice of agnimantha. It is a destroyer of all the doshas, if taken with the trisugandhi.

यशोदभस्मनो मात्रा ।

गुंजाद्वयं तु यशोदं तालेन भसितं खादेत् ।
अन्यथा मारितं तत् तु गृह्णीयान् मासमात्रकम् ।

Doses of zinc.

Dose of zinc, incinerated with orpiment, is 2 ractis a day. It is six ractis a day, if incinerated without orpiment.

सदोषयशोदस्य अवगुणः ।

अपक्वं यशोदं रोगान् प्रमेहाजीर्णमारुतान् ।
वमिं भ्रमिं करोत्येतच् छोधयेन् मारयेत् ततः ॥

Evil effects of zinc, not properly incinerated.

Zinc, not properly purified and incinerated, gives rise to the following diseases :—gonorrhoea, indigestion, flatulence, vomiting, and giddiness. It is therefore to be purified and incinerated properly.

यशोदविकारशान्तिः ।

बलाभयां सितायुक्तां सेवते यो दिनत्रयम् ।
यशोदस्य विकारात् स मुक्तिमाप्नोति निश्चितम् ॥

Remedy.

A man is freed from the evil effects of bad zinc, if he takes for three days bala and haritaki mixed with sugar.

अथ वङ्गम् ।

वंगं रंगं शुक्ललोहं कुरूप्यं पिच्चटं तथा ।
त्रपु च त्रपुसं चैव त्रपुषमपि कथ्यते ॥
स्वर्णजं नागजीवनं मृदंगं गुरुपत्रकम् ।
चक्रसंज्ञं तमरश्च नागजं कस्तीरं तथा ॥

आलीमकं सिंहला च स्ववेतं च तथा पुषम्।
हिमं च पूतिगन्धं च संगरमपि कथ्यते॥

अस्य भेदः।

खुरकं मिश्रकं चेति द्विविधं वङ्गमुच्यते।
खुरं तत्र गुणैः श्रेष्ठं मिश्रकं न हितं मतम्॥
धवलं मृदुलं स्निग्धं द्रुतद्रावं सगौरवम्।
निःशब्दं खुरवङ्गं स्यान्मिश्रकं श्यामशुभ्रकम्॥

VANGA (tin).

Its varieties.

There are two kinds of tin, viz. khuraka and mishraka. The former is better than the latter which is unfit for use in medicine. Khuraka is white, soft, soothing, and capable of being melted quickly. It is heavy and melts without any noise. The mishraka variety is blackish white in colour.

अस्य गुणाः।

(१)

वङ्गं तिक्तोष्णकं रुक्षमीषद्वातप्रकोपनम्।
मेहश्लेष्मामयघ्नश्च मेदोघ्नं क्रिमिनाशनम्॥
पाण्डुश्वासविनाशनं पित्तलं च सरं लघु।
चक्षुष्यं लेखनं वृष्यं विशेषान् मेहनाशनम्॥

Its properties.

(1)

Tin is bitter, warm, coarse, and a little increaser of vayu. It cures spermatorrhœa, phlegm, obesity, worms, anemia, and asthma. It is laxitive, light, improver of eye-sight, nutritious, reducer of fat, and a special curer of spermatorrhoea.

(२)

बल्यं दीपनपाचनं रुचिकरं प्रज्ञाकरं शीतलम्।
सौन्दर्य्यस्य विवर्द्धनं हृतजरं नीरोगताकारकम्॥
धातुस्थैर्य्यकरं क्षयक्षयकरं सर्वप्रमेहापहम्।
वंगं भक्षयतो नरस्य न भवेत् स्वप्नेऽपि शुक्रक्षयः॥

(2)

Vanga, duly incinerated, is an increaser of strength, power of digestion of food, appetite, intelligence, and beauty. It produces a cooling effect on the system. Duly taken, it does away with senility, diseases, and waste. It makes the dhatus stable, and cures all sorts of pramehas. Taken regularly, it prevents the nocturnal emission of semen.

अस्य शोधनम्।

प्रथमोविधिः।

द्रावयित्वा निशायुक्ते क्षिप्तं निर्गुण्डिकारसे।
विशुध्यति त्रिवारेण खुरवङ्गं न संशयः॥

First process.

Tin is purified, if it is melted for 3 times, and immersed each time in the juice of nirgundi, mixed with powdered haridra (turmeric).

द्वितीयोविधिः ।

अम्लतक्रविनिक्षिप्तं वर्षाभूविषतिन्दुभिः ।
कटूलाबुगतं वङ्गं द्रावितं परिशुध्यति ॥

Second process.

Tin is purified, if it is melted with punarnava, visha-tinduka, and katu-alabu, and immersed in sour butter milk.

तृतीयोविधिः ।

शुध्यति नागवंगौ घोषावाराऽतपेऽपि मुनिसंख्यैः ।
निर्गुण्डीरससेकैस्तन्मूलरजःप्रलेपैश्च ॥

Third process.

Lead and tin are purified, if they are smeared for seven times with the juice of ghosha only or with the juice of nirgundi mixed with the powder of its roots, and dried in the sun, each time they are so smeared.

चतुर्थोविधिः ।

त्रपु मूत्रवर्गेऽम्लवर्गे वह्नूनां जले क्षारतोये च
वज्रार्कदुग्धे ।
ततः क्षालयित्वा कदंबस्य नीरे शुभं क्षालयेत्
तप्तकं सप्तवारैः ॥

Fourth process.

Vanga is purified, if it is heated and immersed, after each act of heating, in the following :—urines, amlas, juice of arka plant, solutions of ksharas, and milks of snuhi and arka. It is then to be again heated and washed off by means of decoction of kadamba leaves.

पञ्चमोविधिः ।

नागवङ्गे च गलिते रविदुग्धेन सेचिते ।
त्रिवारैः शुद्धिमायातः सच्छिद्रे हण्डिकान्तरे ॥

Fifth process.

Sisaka (lead) and (tin) are purified in the following way :—Keep the metal (tin or lead) inside an earthen vessel, the lower part of which is full of pores, and heat the metal with a fire, made of char-coal, placed inside the vessel, which is to be kept upon a pot containing milk of arka. The metal, when melted, will fall through the pores. The process is to be performed for three times.

षष्ठोविधिः ।

यामार्द्धं चूर्णसंयुक्ते दोलायन्त्रे हि स्वेदनात् ।
वंगपत्रं विशुद्धति सूक्ष्मीकृतं न संशयः ॥

Sixth process.

Thin leaves of vanga are purified by being boiled for one and half hour by means of the Dola Jantram containing lime water.

अस्य मारणम् ।

प्रथमोविधिः ।

सतालेनार्कदुग्धेन लिप्त्वा वङ्गदलानि च ।
बोधिचिञ्चात्वचः क्षारैर्दद्याल्लघुपुटानि च ।
मर्द्दयित्वा चरेद्भस्म तद्रसादिषु कीर्त्तितम् ॥

Incineration of tin.

First process,

Leaves of tin are to be smeared with haritala and milk of arka and then subjected to Laghuputam with the ashes of bodhi (called 'bauri' in Bengal) and chincha (tamarind).

द्वितीयोविधिः ।

प्रद्राव्य खर्परे वङ्गं षोड़शांशं रसं क्षिपेत् ।
स्वल्पस्वल्पालकं दत्त्वा भारद्वाजस्य काष्ठतः ।
मर्द्दयित्वा चरेद्भस्म तद्रसादिषु कीर्त्तितम् ॥

Second process.

Melt some purified banga in an earthen pot placed over fire, and put upon it one sixteenth its weight of mercury. Then put a little purified haritala, every now and then, upon the compound which is to be frequently rubbed by means of a stick made of vanya karpasa wood, till the compound is reduced to ashes.

तृतीयोविधिः ।

पलाशद्रवयुक्तेन हरितालेन लेपितम् ।
म्रियते वंगपत्रं हि पुटेन नात्र संशयः ॥

Third process.

Leaves of vanga are reduced to ashes, if they are subjected to putam after having been smeared with haritala rubbed with the juice of palasha.

चतुर्थोविधिः ।

भल्लाततैलसंलिप्तं वङ्गं वस्त्रेण वेष्टितम् ।
चिञ्चापिप्पलपलाशकाष्ठाग्नौ याति पञ्चताम् ॥

Fourth process.

Vanga is reduced to ashes, if it is heated by fire made of chincha, palasha, and pippala wood, after having been mixed with oil or essence of bhallataka and wrapped with a piece of cloth.

पञ्चमोविधिः ।

अर्कदुग्धेन संपिष्टं सतालं पुटसप्तकैः ।
वंगं हि म्रियते शुष्काश्वत्थवल्कलवेष्टितम् ॥

Fifth process.

Vanga is incinerated, if subjected to putam for seven times after having been mixed with haritala and rubbed with milk of arka plant, dry barks of

aswatha tree being placed on all sides of the vanga, while confined within the samputam.

षष्ठोविधिः ।

विशुद्धवङ्गपत्राणि द्रावयेद्भाण्डकान्तरे ।
अपामार्गोद्भवं चूर्णं तत्तुल्यं तत्र मेलयेत् ॥
स्थूलाग्रया लौहदर्व्या शनैस्तदभिमर्दयेत् ।
यावद् भस्मत्वमाप्नोति तावन्मर्दयन्तु पूर्ववत् ॥
ततस्त्वेकीकृतं चूर्णं कृत्वा चाङ्गारवर्ज्जितम् ।
नूतनेन शरावेण रोधयेच्च भिषग्वरः ।
पश्चात्तीव्राग्निना पक्वं वङ्गं भस्म भवेद् ध्रुवम् ॥

Sixth process.

Purified leaves of vanga are to be melted in an earthen vessel, placed over fire, and an equal quantity of ashes of apamarga is to be mixed with the melted vanga. The whole thing is to be rubbed quickly by means of the thick end of an iron rod, till the whole thing turns into ashes, which are next to be freed from powdered charcoal, and again subjected to a very strong heat by putam. This results in the incineration of the vanga.

सप्तमोविधिः ।

वंगं खर्परके कृत्वा चुल्ल्यां संस्थापयेत् सुधीः ।
द्रवीभूते पुनस्तस्मिन् चूर्णान्येतानि दापयेत् ॥

प्रथमं रजनीचूर्णं द्वितीयं च यमानिका ।
तृतीयं जीरकं चैव ततश्चिञ्चात्वगुद्भवम् ॥
अश्वत्थवल्कलोत्थं च चूर्णं तत्र विनिःक्षिपेत् ।
चालयेदविरामं तल्लौहदर्व्या च खर्परे ॥
एवं विधानतो वंगं म्रियते नात्र संशयः ।
चूर्णाणि भस्मीभूतानि चालयेद् वारिणा ततः ॥

Seventh process.

Vanga is to be placed over fire in an earthen pot. When it melts, the following powders are to be placed upon it, the whole thing being turned constantly by means of an iron ladle :—turmeric, jamani, jeera, chincha bark, and aswatha bark—all of these finely powdered. The whole thing is thus reduced to ashes. The ashes of the powders are then to be washed off by means of water, leaving the white powders of vanga deposited at the bottom.

अष्टमोविधिः ।

माक्षिकं हरितालञ्च पलाशस्वरसेन च ।
पिष्ट्वा कल्केन संलिप्य वङ्गपत्राणि मारयेत् ॥

Eighth process.

Vanga is incinerated, if it is subjected to heat by putam after having been smeared with a paste made

of makshika, and haritala, duly rubbed with the juice of palasha leaves.

नवमोविधिः ।

नागवच्छोधयेद् वंगं तद्वदश्वत्थचिञ्चयोः ।
सद्भस्म हरितालं च तुल्युमम्लेन केनचित् ॥
पलाशोत्थद्रवैर्वाथ लिप्त्वा वङ्गं पचेत् पुटे ।
उद्धृत्य दशमांशेन तालेन सह मर्दयेत् ॥
पूर्वद्रावैः सहालोड्य रुद्ध्वा गजपुटे पचेत् ।
तद्विंशतिपुटैः पक्वं मृतं भवति भस्मसात् ॥

Ninth process

Both vanga and sisaka (lead) may be purified in the same way, and both may be incinerated in the following way :—Ashes of aswatha and chincha and an equal quantity of haritala are to be rubbed with a sour-non-metallic juice or with the juice or decoction of palasha leaves. Vanga or sisaka is to be smeared with this paste and heated by putam. When cooled, the whole thing is to be taken out of the putam, rubbed again with one tenth its weight of haritala and the liquid referred to above, and then subjected to heat by putam. Twenty such putams are to reduce the vanga (or sisaka) into ashes.

दशमोविधिः ।

वंगपादेन सूतेन वङ्गपत्रं विलेपयेत् ।
शिरीषरजनीचूर्णं कुमार्य्याः सह पेषयेत् ॥
सूतलिप्तं वङ्गपत्रं तत्कल्केन विलेपयेत् ।
चिंचावृक्षस्य संगृह्य चान्तश्छन्नं च तण्डूलैः ॥
पिष्टा तत् पिण्डमध्ये तु वंगपत्रं च रक्षयेत् ।
रुद्धं गजपुटे पक्वं विंशत्या म्रियते पुटैः ॥

Tenth process.

Leaves of vanga are to be smeared with one fourth their weight of mercury, and then with a paste made of bark of shirisha, turmeric, and juice of kanya. They are then to be put inside a paste made of rice and tamarind seeds, and then heated by putam. Twenty such putams result in the incineration of the vanga.

एकादशोविधिः ।

मृत्पात्रे द्राविते वङ्गे क्षिपेत् तत्र सुवर्चिकाम् ।
घर्षयेत् लौहदर्व्या तु यावत् तस्मात् तनुनपात् ।
निःसृत्य प्रदहेत् सर्वं स्वांगशीतलमुद्धरेत् ।
सुवर्चिकापनोदार्थं सलिलैः क्षालयेन् मुहुः ॥
ततोऽतिनिर्म्मलं ग्राह्यं वङ्गभस्म मनीषिणा ।
अथ भस्मसमं तालं क्षिप्त्वाम्लेन विमर्दयेत् ॥

ततो गजपुटे पक्त्वा पुनरम्लेन मर्दयेत् ।
तालेन दशमांशेन याममेकं ततः पुटेत् ॥
एवं दशपुटैः पक्वं वंगं भवति मारितम् ॥

Eleventh process,

Tin melted in an earthen pot, kept over fire, is to be rubbed, by means of an iron ladle with salt petre, gradually put upon it, till fire comes out of it and burns the whole thing. Upon the fire being put out and the pot with its contents being cooled of itself, the ashes of tin are to be freed from those of salt-petre by means of water. The ashes, thus prepared, with an equal quantity of haritalam, are to be rubbed with a sour vegetable juice, and subjected to heat by Gaja-putam. The product with one tenth its weight of haritalam is again to be rubbed with a sour vegetable juice, and again subjected to heat by putam. Ten such acts of putam will kill the tin out-right.

द्वादशोविधिः ।

माक्षिकं हरितालं च पलाशस्वरसेन च ।
पिष्ट्वा कल्केन संलिप्य वंगपत्राणि मारयेत् ॥

Twelfth process.

Vanga is incinerated, if it is subjected to heat by putam, after having been smeared with a paste made of swarna-makshika, haritala, and juice of palasha.

त्रयोदशोविधिः ।

तालकैः कर्कटास्थिभिः शंखशुक्तिवराटकैः ।
सिन्धुकर्पूरसंयुक्तं मारयेद्वंगपत्रकम् ॥

Thirteenth process.

Leaves of vanga are incinerated by means of haritala, rock-salt, camphor, shells of crab, conch, oyster, and cowrie. [This may be effected in one of these two ways :—(1) Molten vanga may be roasted with the powder of the things specified, the ashes of which may be washed away afterwards, or (2) Leaves of vanga may be heated by putam after having been smeared with a paste of the things specified.]

चतुर्दशोविधिः ।

अक्षं भल्लाततोयेन पिष्ट्वा वंगं विलेपयेत् ।
ततस्तिलखलिमध्ये रुद्ध्वा तच्च पुटे पचेत् ।
गजाख्यैर्जायते भस्म चत्वारिंशत्प्रसंख्यकैः ॥

Fourteenth process.

Vanga is incinerated, if it is heated by Gaja putam for forty times, after having been smeared each time with a paste made of bibhitaki and decoction of bhallataka and covered on all sides by means of sesamum cakes.

वंगकल्पः ।

वंगभस्म समं कान्तं व्योमभस्म च तत्समम् ।
मर्दयेत् कनकाम्भोभिर्निम्बपत्ररसैरपि ॥
दाड़िमस्य मयूरस्य रसेन च पृथक् पृथक् ।
भूपालावर्त्तभस्माऽथ विनिःक्षिप्य समांशकम् ॥
गोमूत्रकशिलाधातुजलैः सम्यग् विमर्दयेत् ।
ततः गुग्गुलुतोयेन मर्दयित्वा दिनाष्टकम् ॥
विशोष्य परिचूर्ण्याऽथ समभागेन योजयेत् ।
भृष्टबब्बूरनिर्य्यासैराकुलीबीजचूर्णकैः ॥*
ततः क्षिपेत् करंडान्तर्विधाय पटगालितम् ।
गोतक्रपिष्टरात्रीणां सारेण सह दापयेत् ।
धातुपुष्टिकरं चैतत् प्रमेहकुलनाशनम् ॥

Vanga-kalpa.

Tin, kanta iron, and mica—all equal in quantities and reduced to ashes, are to be rubbed with the juices of leaves of kanaka dhutura, nimba, pomegranate, and apamarga, respectively and separately. Incinerated rajavarta, * equal in quantity to the tin, is then to be mixed with the compound, referred to above, and the whole thing is to be rubbed well with cow's urine, and shila-jatu dissolved with water.

* घृष्टं बन्धूकनिर्य्यासैर्नाकुलीबीजचूर्णकैः । इत्येतत् पाठान्तरम् ।

* See chapter on gems in the present volume.

The product is then to be rubbed for eight days with guggulu (duly purified by means of being boiled in a Dola-Jantram with the decoction of guruchi, dashamuli, or triphala), dissolved with water. It is then to be dried, powdered, and mixed with an equal quantity of gum of babbula (acacia), fried by heat and reduced to powder, and with the same quantity of the powder of akuli (nirmali) seeds. The whole thing is then to be finely powdered and sifted by means of a piece of cloth and kept carefully. This medicine cures all sorts of meha and prameha, if taken with the juice of turmeric, pestled with butter-milk (prepared from cow's milk).

चतुर्भिर्वल्लकैस्तुल्यमेतद्ध वंगं रसायनम् ।
निश्चितं तेन नश्यन्ति मेहा विंशतिभेदकाः ॥
शालयो मुद्गसूपं च नवनीतं तिलोद्भवम् ।
पटोलं तिक्ततुंडीरं तक्रं पथ्याय शस्यते ॥

This preparation of vanga, taken in doses of 12 ractis a day, serves as a destroyer and preventer of senility. It also cures all sorts of diseases relating to the semen. The following diet should be taken by the user of the preparation :—shali rice, juice of mudga pulses, butter, sesamum oil, patola, gopalakarkati, and butter milk.

वंगस्य अनुपानानि ।

कर्पूरेण युतं वंगं मुखगन्धविनाशनम् ।
जातिफलेन संयुक्तं पुष्टिकृच्छुक्रधारणम् ॥
तुलसीपत्रतोयेन प्रमेहस्य विनाशनम् ।
घृतेन पाण्डुरोगजित् टंकणैर्गुल्मनाशकम् ॥
हरिद्रयाम्लपित्तघ्नं मधुना बलवृद्धिकृत् ।
सितोपलेन पित्तघ्नं ताम्बूलैः शुक्रबन्धनम् ॥
पिप्पल्या वह्निमान्द्यघ्नं निशया चोर्द्ध श्वासहृत् ।
चम्पकस्वरसेनैव गात्रगन्धं विनाशयेत् ॥
निम्बस्य स्वरसेनाद्यं देहदाहप्रशान्तये ।
कस्तूरीसहितं वंगं वातघ्नं वीर्य्यरोधकृत् ॥
खदिरक्काथयोगेन चर्मरोगं जयेदिदम् ।
पूगफलस्य सार्धेनाजीर्णं विनाशयेत् चणात् ॥
नवनीतसमायुक्तमस्थिजैरण्यं जयेदिदम् ॥
दद्यात् पुष्टिं समं दुग्धैः भंगादिना हि स्तम्भनम् ।
रसोनैर्वातजां पीड़ां नाशयेन्नात्र संशयः ॥
समुद्रफलसंयुक्तनिर्गुण्डीस्वरसैः सह ।
कुष्ठं नाशयते चिप्रं सिंहनादो मृगानिव ॥

अपामार्गस्य मूलेन षण्ढत्वं नाशयेद् ध्रुवम् ।
देवपुष्पसमायोगात् समुद्रफलयोगतः ।
नागपत्ररसैर्लिप्तं शिश्नवृद्धिकरं परम् ॥
गोरोचनलवंगेन तिलको मोहनं भवेत् ।
एरण्डमूलिकायोगाद् घर्षयित्वा च वंगकम् ॥
ललाटे लेपनाच्चैव शीर्षगदः प्रशाम्यति ॥
कौञ्जेऽपामार्गमूलेन प्लीहि टंकणसंयुतम् ।
रसोनतैलयुड नस्यमपस्मारनिसूदनम् ॥
पुत्राप्त्यै रासभीक्षीरैस्तक्राढ्यं वातगुल्मनुत् ।
यमानिकायुतं वाते वाजिगन्धायुतं तु वा ॥
जलोदरे त्वजाक्षीरसंयुतं गुणकृद् भवेत् ।
जातिफलाश्वगन्धाभ्यां कटिपीड़ानिवारणम् ॥

Accompaniments of vanga.

Vanga cures bad smell coming out of the mouth, if taken with camphor. It is nutritious and retainer of semen, if taken with jatiphala. In diseases relating to the semen, it is to be used with the juice of tulashi leaves. It is to be used in anemia with clarified butter ; in gulma with tankanam ; in amlapittam (acidity and biliousness) with haridra ; for increase of strength with honey ; in an excess of

pittam with sugar-candy; for an increase of semen, with juice of tambula (betel leaves); in loss of digestive power, with pippali; in asthma or gasping, with haridra; with juice of champaka flower, in bad smell coming out of the body; with juice of nimba leaves in inflammation of the body; with musk, in diseases due to an excess of vayu; with juice of khadira in skin diseases; with betel nuts in indigestion; with butter in the decay of bones; with milk for nourishment; with bhanga (bhang), etc., for retention of semen; with the juice of rasona (garlic), in diseases due to vayu; in leprosy with samudra fruit mixed with the juice of nirgundi; with the root of apamarga, in impotency; for increase of growth of the penice, it should be used as a paste with lavanga, samudra fruit, and juice of betel leaves. It produces a sort of hypnotising power in the man who uses it as a *tilaka* (a mark with sandal paste, etc., on the forehead). It cures head diseases, if applied on the forehead as a paste made with eranda roots and water. It is to be used with apamarga roots in hunch-backedness; with tankanam in enlargement of spleen. It cures hysteria, if used as a snuff with rasona and sesamum oil. It is to be used with the milk of ass for the purpose of conceiving or begetting a male child; with butter-milk in gulma due to an excess of vayu; with jamani or ashwagandha, in diseases due to an excess of vayu; with goat's milk in dropsy; and with jatiphala and ashwagandha in sciatica.

शोधनमारणहीनवङ्गस्य अवगुणाः।

(१)

पाकेन हीनः खलु वंगकं हि कुष्ठानि गुल्मानि
बहूंश्च रोगान्।
पाण्डुप्रमेहापचिवातरक्तं बलापहारं कुरुते नराणाम्॥

Evil effects of vanga, not properly purified and incinerated.

(1)

Vanga, not properly purified and incinerated, gives rise to various diseases such as leprosy, gulma, anemia, spermatorrhœa and gonorrhœa, scrofula, vata-racta (leprosy of a mild type), and loss of strength.

(२)

वंगं विधत्ते खलु शुद्धिहीनमाक्षेपकम्पौ च किलास-
गुल्मौ।
कुष्ठानि शूलं किल वातशोथं पाण्डु प्रमेहञ्च
भगन्दरञ्च॥
विषोपमं रक्तविकारवृन्दं क्षयञ्च कृच्छ्राणि कफज्वरञ्च।
मेहाश्मरीविद्रधिमुष्करोगान् नागोऽपि कुर्य्यात्
कथितान् विकारान्॥

(2)

Vanga as well as sisaka, not properly purified and incinerated, gives rise to the following:—spasm, shivering, kilasha, gulma, kustha, colic, dropsy,

anemia, prameha, fistula, impurities of the blood, phthisis, obstinate fever due to an excess of kapha, stone disease, and tumour.

वंगविकारशान्तिः ।

मेषश्रृङ्गीसितायुक्तां सेवते यो दिनत्रयम् ।
वंगदोषविमुक्तोऽसौ सुखं जीवति मानवः ॥

Remedy.

A man is freed from the evil effects of vanga, prepared improperly, if he takes for three days mesha-shringi (powder or decoction) with sugar or sugar-candy.

अथ नागम् ।

सीसं व्रध्रं च वप्रं च योगेष्टं सीसकं नागम् ।
कुवंगं च कुरंगं च द्विरदसर्पनामकम् ॥

सीसकस्य गुणाः ।

(१)

सीसं रंगगुणं ज्ञेयं विशेषान् मेहनाशनम् ।
सतिक्तमधुरो नागो मृतो यदा तु भस्मसात् ।
आयुःकीर्त्तिवीर्यवृद्धिं करोति सेवनात् सदा ॥

Sisaka (*Lead.*)
Its properties.

(1)

The properties of lead are similar to those of tin. It is especially efficacious in diseases affecting the semen. It is bitter and sweet in taste.

(२)

नागस्तु नागशततुल्यबलं ददाति
व्याधिं विनाशयति जीवनमातनोति ।
वह्निं प्रदीपयति कामबलं करोति
मृत्युं च नाशयति सन्ततसेवितः सः ॥

(2)

When incinerated, it increases longevity, semen, power of digestion of food, and procreative energy, if taken regularly and for a long time.

(३)

अत्युष्णं सीसकं स्निग्धं तिक्तं वातकफापहम् ।
प्रमेहतोयदोषघ्नं दीपनं चामवातनुत् ॥

(3)

Lead produces a very hot sensation in the system. It is soothing, bitter in taste, destroyer of vayu, kapha, prameha, and rheumatism, and increaser of power of digestion.

(४)

सतिक्तमधुरो नागो तारस्य रञ्जनो परः ।
स्मृत्यायुर्वीर्य्यवर्द्धनं करोति सेवनात् सदा ॥

(4)

Lead is bitter and sweet in taste. It is a good dyer of silver. By constant use, it increases memory, longevity, and semen.

(५)

क्षयपवनविकारे गुल्मपाण्ड्वामयेषु ।
भ्रमकृमिकफशूले मेहकासामयेषु ॥
ग्रहणीगुदगदे वै नष्टवह्नौ प्रशस्तः ।
शुभविधिकृतनागः कामपुष्टिं ददाति ॥

(5)

Lead, incinerated in the best way prescribed, is efficacious in phthisis, diseases due to vayu, gulma, anemia, giddiness, worms, colic due to an excess of phlegm, spermatorrhœa, chronic diarrhœa, diseases affecting the rectum, and loss of the power of digestion. It also serves as an aphrodisiac.

शुद्धसीसस्य परीक्षा ।

द्रुतद्रावं महाभारं छेदे कृष्णं समुज्ज्वलम् ।
पूतिगन्धं बहिः कृष्णं शुद्धसीसमतोऽन्यथा ॥

Test of lead free from alloy.

Lead is to be regarded free from alloy, if it melts quickly, weighs heavy, and presents a black and bright sectional surface at the place where it is cut into two pieces.

अस्य शोधनम् ।

प्रथमोविधिः ।

निर्गुण्डीमूलचूर्णेन चार्कदुग्धेन लेपयेत् ।
नागपत्रं परिशुष्कं द्रावयित्वा निषेचयेत् ॥

निर्गुण्डीद्रवमध्ये तु ततः पत्रं तु कारयेत् ।
लिप्तं भाव्यं पुनः सेच्यं सप्तवारं विशुद्धये ॥

Purification of Lead.

Lead is purified, if it is made into leaves, smeared with powdered nirgundi roots rubbed with milk of arka, and then dried, melted, and immersed into the juice of nirgundi, the process being performed for seven times.

द्वितीयोविधिः ।

निशा तुम्बुरुबीजानि कोकिलाक्षं कुठारिका ।
गौरीफलाम्लिका चण्डी क्षुद्रब्राह्मी च जीरकम् ॥
यथालाभेन भस्मैषां वज्रीक्षीरेण भावयेत् ।
तन्मध्ये निहितं नागं शुद्ध्यै स्वेद्यं तु सप्तधा ॥

Second process.

Leaves of lead are purified, if they are smeared with a paste made of the milk of snuhi and the ashes of as many as available of the following, and then heated for seven times, after having been smeared with the paste each time :—haridra, green dhanya seeds, kokilaksha, kootharika, amalaki, chincha, red-rose, small brahmi, and jeera.

तृतीयोविधिः ।

घोषारनागवंगं हि तापितं सप्तवारतः ।
निर्गुण्डीरसमध्ये तु विशुध्यते निमज्जितम् ॥

Third process.

Bell-metal, brass, lead, and tin are purified by heating and immersing them into the juice of nirgundi for seven times.

चतुर्थोविधिः ।

सिन्दुवारजटाकान्तीहरिद्राचूर्णकं क्षिपेत् ।
द्रुते नागेऽथ निर्गुण्ड्यास्त्रिवारं निक्षिपेद् रसे ।
नागः शुद्धो भवेदेवं मूर्च्छास्फोटादि नाचरेत् ॥

Fourth process.

Powdered root of nirgundi, barahi-kanda, and haridra are to be thrown into molten lead which is then to be immersed into the juice of nirgundi for three times (after having been melted each time). Lead, thus purified, does not give rise to hysteria, boils, etc.

पञ्चमोविधिः ।

गलिते नागवङ्गे च क्षिप्ते सच्छिद्रे खर्परे ।
निषेचिते रवेर्दुग्धे त्रिवारेण विशुध्यति ॥

Fifth process.

Lead as well as tin is purified, if it is melted for three times and immersed each time through an earthen pot full of pores, into the milk of arka.

षष्ठोविधिः ।

नागवङ्गौ विगलितौ त्रिधा त्रिधा निषेचयेत् ।
तैले तक्रे च काञ्जिके कषाये च कुलत्थजे ।
रविदुग्धे विशेषेण तयोरेव विशुद्धये ॥

Sixth process.

Lead as well as tin is purified, if it is immersed for three times in each of the following, after having been melted each time :—oil, butter-milk, kanji, decoction of kulattha, and especially, milk of arka plant.

सप्तमोविधिः ।

फलत्रिकजकषाये वा कुमारीरसे वा
करिवरसलिले वा गालयेत् सप्तवारम् ।
खदिरदहनतप्तं लौहपात्रस्थितं स्यात्
तदनु सपदि नागः जायते शुद्धभावः ॥

Seventh process.

Lead is purified, if it is melted for seven times in an iron pot by a fire made of khadira wood and immersed each time either in the decoction of triphala, or in the juice of kanya, or in the urine of elephant.

अस्य मारणम् ।

प्रथमोविधिः ।

अश्वत्थचिंचात्वग्भस्म नागस्य चतुरंशतः ।
क्षिप्त्वा चुल्ल्यां पचेत् पात्रे चालयेल् लौहयष्टिना ॥
यावद् भस्म भवेत् तच्च भस्मतुल्यं मनःशिला ।
जम्बीरैरारनालैर्वा पिष्टा रुद्धा पुटे पचेत् ॥

स्वांगशैत्यं पुनः पिष्ट्वा विंशत्यंशैः शिलाम्लकैः ।
एवं षड्भिः पुटैः पाको नागं कुर्य्यात् निरुत्थितम् ॥*

Incineration of Lead.

First process.

Leaves of lead are to be roasted with one fourth their quantity of the ashes of the barks of aswattha and chincha, in an iron cauldron, turned by an iron rod, till the whole thing turns into ashes. These ashes are to be rubbed with an equal quantity of manas-shila and lime juice or aranala and subjected to heat by putam. When cooled of itself, the contents of the putam are to be taken out and subjected to heat by putam for six times, after having been rubbed each time with one twentieth their weight of manas-shila and a sufficient quantity of a sour vegetable juice.

द्वितीयोविधिः ।

अथवा नागपत्राणि चूर्णलिप्तानि खर्परे ।
अत्यग्नौ पाचयेद् यामं तद्भस्म चित्रकद्रवैः ॥
भर्जयेल् लौहजे पात्रे चालितं पार्थदण्डकैः ।
यामषोड़शपर्य्यन्तं द्रवो देयः पुनः पुनः ॥
पाकान्ते सर्वमुद्धृत्य मर्दयेच्चित्रकद्रवैः ।
गोलयित्वा विमारयेत् षड्भिर्लघुपुटैश्च तत् ॥

* षड्भिः पुटैः इत्येतस्य स्थले षष्टिपुटैः इत्येतत् पाठान्तरं द्रष्टव्यम् ।

Second process.

Leaves of lead are to be smeared with a sufficient quantity of slaked lime and heated in an earthen pot by a very strong heat for three hours. The ashes, thus prepared, are to be roasted with a decoction of chitraka roots for forty eight hours, being turned all the while by means of a branch of an arjuna tree, fresh decoction being poured into the vessel every now and then. The ashes are next to be subjected to heat by *laghuputam* for six times, after having been rubbed each time with a decoction of chitraka roots.

तृतीयोविधिः ।

चिंचात्वकेक्षुभल्लातबलावज्रलताभवैः ।
अपामार्गार्जुनाश्वत्थभस्मभिर्भर्जयेद् दृढम् ॥
सप्ताहं नागपत्रकं नियतं परिचालितम् ।
पलाशतरुदण्डेन म्रियते नात्र संशयः ॥

Third process.

Leaves of lead are incinerated, if they are fried steadily in an iron cauldron with the ashes of chincha, bibhitaki, ikshu (sugar-cane), bhallataka, bala, asthisanhara, apamarga, arjuna, and aswattha, for seven days continuously, being turned constantly all the while by means of a palasha rod.

चतुर्थोविधिः।

कुनटी माक्षिकं चैव समभागं तु कारयेत्।
अर्कपर्णेन तत् पिष्ट्वा सीसपत्राणि मारयेत्॥

Fourth process.

Leaves of lead are incinerated, if they are subjected to heat by putam after having been smeared with a paste made of an equal quantity of manas-sila and makshika, rubbed with the juice of arka leaves.

पञ्चमोविधिः।

हृतमुत्थापितं सीसं दशवारेण सिध्यति।
तन्मृतं सीसकं सर्वदोषमुक्तं रसायनम्॥ *

Fifth process.

Lead, killed and revived for ten times, is to be killed once more. The ashes, thus obtained, are freed from all defects and serve as a medicine which prevents and cures senility.

षष्ठोविधिः।

शिलया रविदुग्धेन नागपत्राणि लेपयेत्।
मारयेत् पुटयोगेन निरुत्थं जायते तथा॥

* धातूनामनिरुत्थं भस्म केनचिदम्लरसेन सार्द्धं मर्दितं ध्मापितं च पूर्वाकारमवाप्नुयात्। यथा हि—क्षारा सुखकराः सर्वे सर्वेह्यम्लाः प्रबोधकाः।

Sixth process.

Leaves of lead are incinerated absolutely, if they are subjected to heat by putam after having been smeared with manas-shila, rubbed with the milk of the arka plant. Such ashes are rendered incapable of being restored to their original condition.

सप्तमोविधिः।

त्रिभिः कुम्भिपुटैर्नागो वासारसविमर्दितः।
सशिलो भस्मतामेति तद्रजः सर्वमेहनुत्॥

Seventh process.

Lead is incinerated, if it is rubbed with the juices of kumbhi (a kind of water plant), vasaka leaves, and manas-shila, and then subjected to heat by putam for three times.

अष्टमोविधिः।

एकोभागोऽहिफेनस्य नागभागचतुष्टयम्।
घर्षणान् निम्बकाष्ठेन मन्दवह्निप्रदानतः।
नागभूतिर्भवेत् सिता वीर्य्यदार्ढ्यकरी मता॥

Eighth process.

Four parts of lead and one part of opium are to be heated together by a mild heat, and rubbed continuously, while heated, by a rod made of nimba wood. This results in the reduction of the lead to white powder, which, taken in proper doses, strengthens semen.

नवमोविधिः ।

कुड्वं नागपत्राणां कुनट्याः स्यात् पलार्द्धकम् ।
तण्डुलीयरसैर्यामं यामं वासारसैस्तथा ॥
संमर्द्य चक्रिकां कृत्वा घर्मे संशोष्य तां पुनः ।
शरावसंपुटे कृत्वा पचेद्व वन्योपलैर्भिषक् ॥
एवं सप्तपुटैर्नागो भस्मीभवति निश्चितम् ।
द्विगुंजोऽयं ध्रुवं हन्यात् प्रमेहानखिलान् गदान् ॥

Ninth process

Sixteen tolas of leaves of lead and two tolas of manas-shila are to be rubbed for three hours each with the juices of tanduliyaka and vasaka, and made into cakes which are to be dried in the sun and heated by putam. Performance of this process for seven times results in the incineration of the lead, which, taken in doses of two ractis a day (with honey and juice of turmeric, etc.) cures all sorts of prameha (gonorrhœa).

दशमोविधिः ।

नागं खर्परके निधाय कुनटीचूर्णं ददीत द्रुते ।
निम्बूत्थद्रवगन्धकेन पुटितं भस्मीभवत्याशु तत् ॥
एवं तालकवापतस्तु कुटिलं चूर्णीकृतं तत् पुटेत् ।
गन्धाम्लेन समस्तदोषरहितं योगेषु योज्यं भवेत् ॥

Tenth process.

Powdered manas-shila is to be mixed with lead, when melted in an earthen vessel. It is then to be powdered and subjected to heat by putam, after having been rubbed with sulphur and lemon juice. This results in the lead being reduced to ashes very soon. Powdered haritalam may be used in lieu of manas-shila.

एकादशोविधिः ।

(हरिद्भस्म)

खर्परे तापितं नागं रविमूलेन घर्षयेत् ।
यामत्रिकैर्भवेद्भस्म हरिद्वर्णमदूषणम् ॥

Eleventh process.

Lead, heated in an earthen pot, is to be rubbed with the roots of arka plant for three hours, after which it is reduced to powder of a green colour.

द्वादशोविधिः ।

(पीतभस्म)

शिलागन्धककर्पूरं कुंकुमं मर्दयेत् समम् ।
जंबीरस्य द्रवैर्यामं तत्समं नागपत्रकम् ॥
लिप्त्वा लिप्त्वा पुटे पाच्यं यावत् षष्टिपुटं भवेत् ।
तन्नागं विद्युदाभासं जायते नात्र संशयः ॥

Twelfth process.

Leaves of lead are reduced to ashes of a yellowish colour, if they are subjected to heat by putam

for sixty times, after having been smeared each time with manas-shila, gandhaka, karpura, and kunkuma, all combined being equal in quantity to the lead, rubbed with lime juice for three hours.

त्रयोदशोविधिः ।

तिर्य्यगाकारचुल्ल्यां तु तिर्य्यग्वक्त्रघटं न्यसेत् ।
तं च वक्त्रं विना सर्वं गोपयेद् यत्नतो मृदा ॥
भृष्टयन्त्राभिधे तस्मिन् यन्त्रे नागं विनिक्षिपेत् ।
विंशतिपलमात्रकमधस्तीव्रानलं क्षिपेत् ॥
द्रुते नागे क्षिपेत् सूतं शुद्धं कर्षमितं शुभम् ।
विघट्य निक्षिपेत् क्षारमेकैकं हि पलं पलम् ॥
अर्जुनस्याक्षवृक्षस्य महाराजगिरेरपि ।
दाड़िमस्य मयूरस्य क्षिप्त्वा क्षारं पृथक् पृथक् ॥
एवं विंशतिरात्रं वै पचेत् तीव्रेण वह्निना ।
विघट्टयन् दृढं दोर्भ्यां लौहदर्व्या प्रयत्नतः ॥
रक्तं तज्जायते भस्म कपोतच्छायमेव वा ।
नागं दोषविनिर्मुक्तं जायतेऽति रसायनम् ॥

Thirteenth process.

On an oven of slanting shape place a vessel which also is of slanting shape. All parts of the latter, except its mouth, are to be coated with mud. This apparatus is called the Bhrista Jantra.

Pour 20 palas of lead into this vessel, and heat it by a very strong fire. One tola of purified mercury is to be poured into the lead, when melted, the whole thing being rubbed by means of an iron rod. One pala of the kshara of each of the following is to be put, one by one, on the lead, and the rubbing is to be continued :—arjuna, vibhitaki, mango tree, pomegranate tree, and apamarga. The roasting is to be carried on in this way by a strong heat for 20 nights, resulting in the reduction of the lead into ashes of red colour or of a colour resembling that of a pigeon.

चतुर्दशोविधिः ।

तांबूलरससंपिष्टः शिलालेपात् पुनः पुनः ।
द्वात्रिंशद्भिः पुटैर्नागो निरुत्थो याति भस्मताम् ॥

Fourteenth process.

Lead is incinerated, if it is subjected to heat by putam for thirty two times, after having been smeared each time with a paste made of manas-shila, rubbed with the juice of tambula (betel leaves).

पञ्चदशोविधिः ।

(नागसिन्दूरः)

कुमारीपादघातेन तत्क्षणान् म्रियते फणी ।
पुटेन शतकेनापि सिंदूरः केवलं भवेत् ।
तारे ताम्रे तथा वंगे ततो वेधी भवेद् ध्रुवम् ॥

Fifteenth process.

Powdered lead is reduced to ashes of red colour, if it is subjected to putam for hundred times, after having been rubbed with the juice of the root of kanya each time it is so heated. Such ashes may transform silver, copper, and tin into gold.

षोड्शोविधिः ।

(नागसिन्दूरः ।)

भूनागागस्त्यपत्राणि पिष्ट्वा पात्रं विलेपयेत् ।
वासापामार्गजं क्षारं तत्र नागयुतं क्षिपेत् ॥
चतुर्थांशप्रमानेन वासादर्व्या विघट्टयेत् ।
यामैकेन भवेद्भस्म वासकस्वरसान्वितम् ।
मर्दयेत् पुटयेच्चैव नागसिन्दूरकं हि तत् ॥

Sixteenth process.

The inner surface of a pot is to be coated with a paste made of earthworms and leaves of vasaka. Into this vessel is to be placed some lead with one fourth its quantity of ksharas, prepared out of vasaka and apamarga plants (duly burnt, dissolved with water, filtered, and then dried). The vessel is then to be placed over fire and the lead with the ksharas to be turned constantly by a ladle made of the vasaka plant. This will result in the incineration of the lead, in course of three hours only. The ashes, thus prepared, are to be rubbed with the juice

of vasaka leaves, and subjected to heat by putam. They will thus assume the colour of red vermilion.

सप्तदशोविधिः ।

(नागसिन्दूरः ।)

भुजंगममगस्त्यस्य पत्रं पिष्टा प्रलेपयेत् ।
तत्र संविद्रुते नागे वासापामार्गसंभवम् ॥
क्षारं वा मिश्रयेत् तत्र चतुर्थांशं प्रयत्नतः ।
प्रहरं पाचयेच् चुल्ल्यां वासादर्व्या च घट्टितम् ॥
तत उद्धृत्य तच्चूर्णं वासानीरैर्विमर्द्दयेत् ।
पुटेत् पुनः समुद्धृत्य तेनैव परिमर्द्दयेत् ॥
एवं सप्तपुटैर्नागः सिन्दूरो जायते ध्रुवम् ।
पादांशदरदेन च युक्तोऽयं जायते वरः ॥

Seventeenth process.

Lead is to be smeared with a paste made of the leaves of vasaka. It is then to be melted and roasted for three hours with a decoction of vasaka and apamarga or one fourth its quantity of a kshara (alkali) prepared out of the ashes of vasaka and apamarga *, a branch of a strong vasaka tree being used as a ladle to turn the preparation. The ashes are then to be subjected to putam for seven times, after having been rubbed each time with the juice of vasaka. The product is sindura or red vermilion.

* The process of preparation of ksharas will be described later in the present volume.

It gains in efficacy, if mixed with one fourth its quantity of hingula (duly purified).

अष्टादशोविधिः ।

(नागसिन्दूरः ।)

पादांशागस्त्यभूनागलिप्तं नागं विशोषयेत् ।
तद्भाण्डे द्रावयेद् यत्नाद् दृढे भाण्डे विनिक्षिपेत् ॥
वासाचिञ्चिटयोः क्षारं वासादले विघट्टयेत् ।
यामैकं पाचयेच् चुल्यां समुद्धृत्य विमिश्रयेत् ॥
तच्चूर्णं तु शिलाताप्यैर्वासकक्षारसंयुतैः ।
तच्च तुल्यं पूर्वनागैरेकविंशतिधा पुटेत् ।
द्विपुटं चिञ्चिटाक्षारैर्देयं वासारसैः सह ।
नागं सिन्दूरवर्णाभं म्रियते सर्वकार्य्यकृत् ॥

Eighteenth process.

Lead is to be dried after having been smeared with one fourth its quantity of vasaka leaves rubbed with earthworms. It is then to be melted and kept in a strong pot. Ksharas of vasaka and apamarga are to be rubbed with the leaves of vasaka and then heated for three hours by fire. These ksharas are to be mixed well with the lead (finely powdered). The powder, thus prepared, is to be subjected to heat by putam for 21 times, after having been mixed each time with manas-shila, swarnamakshika, and kshara of vasaka, these three combined being equal to the

original quantity of the lead. The product is again to be subjected twice to heat by putam after having been rubbed each time with the juice of vasaka. The product is red vermilion.

नागामृतम् ।

(१)

पलद्वयं मृतं नागं हिंगुलं च पलद्वयम् ।
शिला कर्षमिता ग्राह्या सर्वतुल्यं हि गन्धकम् ॥
निम्बुनीरेण संमर्द्य ततो गजपुटे पचेत् ।
तदा नागेश्वरोऽयं स्यान् नागराजसुतोपमः ।
ससूते मारिते नागे न देयं गन्धहिंगुलम् ॥

Nectarization of lead.

(1)

Two palas of lead incinerated (without the help of mercury), an equal quantity of hingula, and one tola of gandhaka—all of these are to be rubbed with the juice of nimboo (lime fruit), and subjected to heat by Gaja putam. Thus treated, lead becomes very powerful.

(२)

वैधं नागोद्भवं भस्म ताप्यभस्माद्ध भागिकम् ।
पादं पादं क्षिपेद्भस्म शुल्वस्य विमलस्य च ॥

कान्ताभ्रसत्त्वयोश्चापि स्फटिकस्य पृथक् पृथक्।
सर्वमेकत्र संचूर्ण्य पुटेत् त्रिफलावारिणा ॥
त्रिंशद्वनगिरिण्डैश्च त्रिंशद्वारं विमद्य तत्।
व्योषवेल्लकचूर्णैश्च समांशैः सह मेलयेत् ॥
मध्वाज्यसंहितं हन्ति प्रलीढं वल्लमात्रया।
अशीतिवातजान् रोगान् धनुर्वातं विशेषतः ॥
कफरोगानशेषांश्च मूत्ररोगांश्च सर्वशः।
श्वासं कासं क्षयं पाण्डुं श्वयथुं शीतिकाज्वरम्।
सर्वानुदकदोषांश्च तत्तद्रोगानुपानतः ॥

(2)

Four parts of incinerated lead, two parts of swarna-makshika, and one part each of copper, vimala, kanta iron, essence of mica, and sphatika (quartz) *—all of these are to be powdered together and subjected to heat by putam for 30 times, by means of a fire made of 30 pieces of cowdung cakes, found dried in the pasturage, after having been rubbed each time with decoction of triphala. The ashes, thus prepared, are to be mixed with an equal quantity of trikatu and biranga, finely powdered, and are to be taken in doses of one balla a day, duly mixed with a little of honey and clarified butter.

* For incineration of quartz, see later in the chapter on gems.

It cures eighty different kinds of diseases due to an abnormal excess of vayu, and especially dhanus-stanbha (titanus), those due to an abnormal excess of phlegm, all sorts of urinary diseases, asthma, kapha, phthisis, anemia, dropsy, fever accompanied with a sensation of coldness, and hydrocele.

नागस्य अनुपानम्।

मृतं नागं सितायुक्तं मायुं वायुं शिरोव्यथाम्।
नेत्ररोगं शुक्रदोषं प्रलापं प्रदाहं जयेत् ॥
प्रददाति रुचिं कामं वर्द्धयेत् पथ्यसेविनः।
स्वबुद्ध्या कल्पयेद् धीमाननुपानं गदेषु च ॥

Accompaniments of lead.

Incinerated lead, if taken with sugar, can cure pittam, vayu, head-ache, eye-disease, diseases affecting semen, delirium, inflammation, loss of appetite, and loss of sexual desire, provided there is nothing to be objected to in the diet taken by the patient.

शोधनमारणहीननागस्यावगुणाः।

कुष्ठानि गुल्मारुचिपाण्डुरोगान् क्षयं कफं रक्त-
विकारकृच्छ्रम्।
ज्वराश्मरीशूलभगंदराद्यं नागं त्वपक्वं कुरुते
नराणाम् ॥

Evil effects of lead, not properly purified and incinerated.

Lead, not incinerated in the prescribed way, gives rise to leprosy, gulma, loss of appetite, anemia, phthisis, phlegm, troublesome impurities of the blood, fever, stone disease, colic, and fistula.

नागदोषशान्तिः ।

हेम्ना हरीतकीं खादन् सितायुक्तां दिनत्रयम् ।
अपक्वनागदोषेण विमुक्तः सुखमेधते ॥

Remedy.

One is freed from the evil effects of lead, not properly incinerated, if one takes incinerated gold with haritaki, (one fourth of a tola in weight), and sugar for three days.

तृतीयोऽध्यायः ।

अथ मिश्रधातवः ।

अथ पित्तलम् ।

अस्य नामानि ।

पित्तलमारकूटश्च द्रव्यदारु रीतिस्तथा ।
मिश्रश्च पतिकावेरः पिंगला पीतलोहकः ॥
आरश्च कपिला चन्द्रसुवर्णं सिंहलं तथा ।
पीतलकं च पीतकं पिङ्गलधातु लोहितम् ॥

अस्य भेदाः ।

रीतिका द्विविधा ज्ञेया तत्राद्या राजरीतिका ।
ब्रह्मरीति द्वितीया सा काकतुण्डी च कथ्यते ॥
संतप्ता काञ्जिके क्षिप्ता ताम्राभा राजरीतिका ।
एवं या जायते कृष्णा काकतुण्डी मता हि सा ॥
यशोदं द्विगुणं ताम्रं द्राविते राजरीतिका ।
ताम्राच्च जायते ब्रह्मरीतिका नागयोगतः ॥
तिक्ता राजरीति रुक्षा जन्तुघ्नी रक्तपित्तनुत् ।
वस्तिविशोधिनी योगात् सोष्णवीर्य्या च शीतला ।
काकतुण्डी गतस्नेहा तिक्तोष्णा कफपित्तनुत् ॥

यकृत्प्लीहहरा सा च शीतवीर्य्या प्रकीर्त्तिता ।
रीतिकायुगलं पाण्डुरोगघ्नं कृमिनाशनम् ॥

CHAPTER III.

MIXED METALS.

Pittala (Brass).

Its varieties.

Riti or Pittala is of two kinds, viz. (1) raja-riti and (2) brahma-riti or kaka-tundi. Raja-riti is that variety of brass which assumes the colour of copper after it is heated and immersed in kanji. Brahma-riti or kaka-tundi is that variety of copper which assumes a black colour, if treated in the afore-said way. Raja-riti consists of two parts of copper and one part of zinc, whereas brahma-riti is the product of copper, zinc, and lead.

Raja-riti is bitter, coarse, destroyer of worms, curer of hœmorrhage, and purifier of the abdomen. It is cooling, but produces heat in the system, if combined with other materials.

Kaka-tundi is coarse, bitter, warm in its immediate effect, but cooling afterwards, destroyer of kapha and pittam, and curer of diseases affecting the spleen and the liver.

Both the varieties are curer of anemia and worms.

शुभाशुभपित्तलस्य लक्षणम् ।

गुर्वी मृद्वी च पीताभा सारांगी ताड़नक्षमा ।
सुस्निग्धा मसृणाङ्गी च रीतिरेतादृशी शुभा ॥

पाण्डुपीता खरा रुक्षा वर्वरा ताड़नाक्षमा ।
पूतिगन्धा तथा लघ्वी रीतिर्नेष्टा रसादिषु ॥

Characteristics of good and bad brass.

Good brass is heavy, mild, yellowish, full of substance, malleable, soft, and smooth. Bad brass is blackish yellow, rough, course, ugly, brittle, yielding bad odour, and light. Such copper is not fit for being used in medicines.

पित्तलस्य शोधनम् ।

प्रथमोविधिः ।

पित्तलं च तथा कांस्यं ताम्रवन् मारयेत् पृथक् ।
ताम्रवच्छोधनं तेषां ताम्रवद् गुणकारकम् ॥

Purification of pittala (brass).

Brass as well as bell-metal is to be purified and incinerated in the same way as copper.

द्वितीयोविधिः ।

तप्ता क्षिप्ता च निर्गुण्डीरसे श्यामारजोऽन्विते ।
पञ्चवारेण संशुद्धिं रीतिरायाति निश्चितम् ॥

Second process.

Brass is purified, if it is heated for five times and immersed each time into the juice of nirgundi, mixed with powdered turmeric.

तृतीयोविधिः ।

त्रिक्षारं पञ्चलवनं सप्तधाम्लेन भावयेत् ।
कांस्यारकूटपत्राणि तेन कल्केन लेपयेत् ।
ततो गजपुटे पाकात् शुद्धिं यान्ति न संशयः ॥

Third process.

The three ksharas and five salts are to be subjected to bhavana for seven times with a sour vegetable juice. Leaves of brass and bell-metal are then to be smeared with the paste, referred to above, and subjected to heat by Gaja-putam. This results in the purification of the leaves.

चतुर्थोविधिः ।

सुवर्णरीतिकाचूर्णं भक्षितं विष्ठितं पुनः ।
छागेन कृष्णवर्णेन मत्तेन तरुणेन च ॥
तन्निप्तं खर्परे दग्धं द्रुतं मुञ्चति शोभनाम् ।
चतुर्दशलसद्वर्णसुवर्णसदृशच्छविम् ।
देहलोहकरी प्रोक्ता युक्ता रसरसायने ॥

Fourth process.

A lusty young goat of black colour is to be fed with powdered brass of an excellent colour, which, when come out of the goat's stomach in the form of stool, is to be burnt in an earthen vessel with the result that excellent brass resembling gold of fourteen units of colour will come out of it. This brass,

when properly incinerated, serves to strengthen the body. It is important both in alchemy and in medicine.

अस्य मारणम् ।

प्रथमोविधिः ।

निम्बुरसशिलागन्धवेष्टिता पुटिताष्टधा ।
रीतिरायाति भस्मत्वं ततो योज्या यथायथम् ॥

Incineration of pittala.

First process,

Brass is incinerated, if it is subjected to heat by putam for eight times, after having been smeared each time with a paste made of lemon juice, manasshila, and sulphur.

द्वितीयोविधिः ।

ताम्रवन्मारणं तस्याः कृत्वा सर्व्वत्र योजयेत् ।
म्रियते गन्धतालाभ्यां युक्ता वा पुटपाकतः ॥

Second process.

Brass may be incinerated in the same way as copper. It may also be incinerated, if subjected to heat by putam after having been smeared with a paste made of sulphur and orpiment.

तृतीयोविधिः।

अर्कक्षीरं वटक्षीरं निर्गुण्डीक्षीरकं तथा।
ताम्ररीतिध्वनिध्वंसे समगन्धकयोगतः।
पुटपाकप्रकारेण समर्थं जायते ध्रुवम्॥

Third process.

Copper, brass, as well as bell-metal is killed, if subjected to heat by putam, after having been smeared with a paste made of the milks of arka, banyan, and nirgundi, rubbed with an equal quantity of sulphur.

पित्तलस्य व्यवहारः।

मृतारकूटकं कान्तं व्योमसत्वं च मारितम्।
त्र्यं समांशकं तुल्यव्योषं जन्तुघ्नसंयुतम्॥
ब्रह्मबीजाजमोदाग्निभल्लाततिलसंयुतम्।
सेवितं निष्कमात्रं हि जन्तुघ्नं कुष्ठनाशनम्।
विशेषाच्छ्वेतकुष्ठघ्नं दीपनं पाचनं हितम्॥

Use of brass.

Incinerated brass, kanta iron. essence of mica, —all equal in quantity to trikatu, biranga, palasha seeds, vana-jamani, chitraka roots, bhallataka oil, and tila (sesamum)——all of these are to be mixed together and taken in doses of one fourth of a tola a day, It cures worms, leprosy, and leucoderma. It increases appetite and power of digestion.

कांस्यपित्तलयोर्वेधः।

आरं तारं समं कृत्वा मृतवंगं नियोजयेत्।
एषा राजवती विद्या पिता पुत्रं न भाषते॥

Transmutation of brass and bell-metal.

Brass and silver, equal in quantity, are to be melted. Incinerated vanga or tin is to be mixed, little by little, with this amalgam with the result that the whole thing will turn into silver.

अथ कांस्यम्।

ध्वनिश्च कांस्यकं कांस्यं घोषपुष्पं च घोषकम्।
घोषो घोषमग्निलोहं घोषा च कथ्यते हि तत्॥
चतुर्भागेन ताम्रेण भागैकखुरकेण च।
विद्रुतेन भवेत् कांस्यं रसे साधु तदेव स्यात्।

Kansya (Bell-metal).

Bell-metal is composed of four parts of copper and one part of vanga, melted together. Bell-metal, thus prepared, is commendable in medicines.

शुभकांस्यस्य लक्षणम्।

तीक्ष्णशब्दं मृदु स्निग्धमीषच्छ्यामलशुभ्रकम्।
निर्मलं दाहरक्तं च षट्कं कांस्यं प्रशस्यते॥

Characteristics of good bell-metal.

Good bell-metal has the following characteristics :—(1) sharp sound, (2) softness, (3) mildness, (4) dusky white colour, (5) freedom from impurities and (6) assumption of red colour, when heated.

अशुभकांस्यस्य लक्षणम् ।

तत् पीतं दहने ताम्रं खरं रुक्षं घनासहम् ।
मर्दनादागतज्योतिः षट्कं कांस्यं परित्यजेत् ॥

Characteristics of bad bell-metal.

Bell-metal of an inferior kind is (1) yellow in colour. (2) When heated, it assumes the colour of copper. (3) It is sharp, (4) coarse, (5) unable to stand percussion, and (6) turns glazy when rubbed with something else.

कांसस्य गुणाः ।

कांस्यं लघु च तिक्तोष्णं लेखनं दृक्प्रसादनम् ।
क्रिमिकुष्ठहरं वातपित्तघ्नं दीपनं हि तत् ॥
घृतमेकं विना चान्यत् सर्वं कांस्यगतं नृणाम् ।
भुक्तमारोग्यसुखदं हितं सात्म्यकरं तथा ।
रससेवी न भुञ्जीत कांस्ये च कदलीदले ॥ *

* प्रथमखण्डे २०४ पृष्ठं द्रष्टव्यम् ।

Properties of Bell-metal.

Bell-metal is light, bitter, and warm, reducer of fat, improver of eye-sight, curer of worms and leprosy, pacifier of vayu and pittam, increaser of power of digestion. Every article of food stuff, except clarified butter, becomes salutary to the system, if served on utensils made of bell-metal. One who takes a mercurial preparation should not take his food served on a bell-metal utensil. *

अस्य शोधनम् ।

प्रथमोविधिः ।

१२३ पृष्ठे तृतीयोविधिः १४३ पृष्ठे प्रथमो विधिस्तथा १४४ पृष्ठे तृतीयो विधिश्च द्रष्टव्याः ।

Purification of Bell-metal.

First process.

See Processes I and III, pages, 143-144 and Process III, page 124.

द्वितीयोविधिः ।

तप्तं कांस्यं गवां मूत्रे वापितं परिशुध्यति ।
यामैकमथवा स्विन्नं तस्मिन्नेव दृढ़ाग्निना ॥

Second process.

Leaves of bell-metal are purified, if they are heated and immersed red hot into cow's urine, or boiled for three hours in the same liquid by a strong heat.

* See page 204, Vol. I.

अस्य मारणम् ।

प्रथमोविधिः ।

(प्रथम खण्डे २४७ पृष्ठे चतुर्थोविधि द्रष्टव्यः ।)

Incineration of Bell-metal.

First process.

(See page 247, Process No 4, Vol. II).

द्वितीयोविधिः ।

पत्तलीकृतपत्रं हि कांस्यस्य शोधितस्य च ।
म्रियते गन्धतालाभ्यां निरुत्थं पञ्चभिः पुटैः ॥

Second process.

Thin leaves of bell-metal, duly purified, are reduced absolutely to ashes, if they are subjected to heat by putam for five times, after having been smeared each time with a paste made of sulphur and orpiment.

अथ वर्त्तलोहम् ।

कांस्यार्करीतिलौहाहिजातं तद्वर्त्तलोहकम् ।
तदेव पञ्चलोहाख्यं लोहविद्भिरुदाहृतम् ॥

Varta-loha.

It is an amalgam of bell-metal, copper, brass, iron, and lead. It is also called pancha-loha (amalgam of five metals).

अस्य गुणाः ।

(१)

हिमाम्लं कटुकं रुक्षं कफपित्तविनाशनम् ।
रुच्यं त्वच्यं कृमिघ्नं च नेत्र्यं च मलविशोधनम् ॥

Its properties.

(1)

Varta-loha is cool, sour, pungent, and coarse. It pacifies kapha and pittam. It increases appetite, is beneficial to skin and eye-sight, is a killer of worms, and purifier of stool, urine, and other excreta from the system.

(२)

तद्भाण्डे साधितं सर्वमन्नव्यञ्जनसूपकम् ।
अम्लेन वर्जितं चातिदीपनं पाचनं हितम् ॥

(2)

All sorts of food, prepared in an utensil of this metal, is salutary to the system, and serves to increase the power of digestion, if there is nothing of sour in the materials cooked.

अस्य शोधनमारणम् ।

द्रुतमश्वजले क्षिप्तं वर्त्तलोहं विशुध्यति ।
म्रियते गन्धतालाभ्यां पुटितं तद्यथाविधि ॥

Purification and Incineration of Varta-loha.

Varta-loha is purified, if it is melted and immersed into the urine of horse. It is incinerated, if it is subjected to heat by putam after having been smeared with sulphur and orpiment.

अथ त्रिलोहम् ।

पञ्चविंशतिः स्वर्णस्य तथा रौप्यस्य षोड़श ।
ताम्रस्य दश भागाश्च त्रिलोहं मिलिता मतम् ॥
त्रिलोहं सर्वदोषघ्नं परमेव रसायनम् ।
पाचनं दीपनं चैव सर्वव्याधिविनाशनम् ॥

Triloha.

Twenty five parts of gold, sixteen parts of silver, and ten parts of copper, melted together, form what is called the triloha. It destroys all the doshas and is a great rasayanam. It increases the power of digestion and is a curer of all the diseases.

अस्य शोधनमारणम् ।

शोधनं मारणं ज्ञेयं त्रिलोहस्य सुवर्णवत् ।
अशोधितममारितं त्रिलोहं हि विषोपमम् ॥

Purification and Incineration of Triloha.

It is purified and incinerated in the same way as gold. Triloha, not properly purified and incinerated, acts like poison.

त्रिलोहरसायनम् ।

रक्तिकामानतो भस्म त्रिलोहस्य यथाविधि ।
सर्पिर्मधुवराव्योषसंयुक्तं यस्तु सेवते ॥
पथ्याशी नियतं प्रातः दीर्घायुः स सुखी सदा ।
बलीपलितनिर्मुक्तो भजते विपुलश्रियम् ॥

Triloha Rasayanam.

One who takes every morning one racti of incinerated tri-loha, mixed with honey, clarified butter, triphala, and trikatu, and observes the prescribed diet, lives a healthy, happy, and long life, without being affected by senile decay.

अथ भूनागसत्त्वम् ।

भूनागान् स्वर्णभूमिजान् स्वर्णसत्त्वान् विजानीयात् ।
इत्येवं ज्ञायते सत्त्वं तेषां जनुस्थलक्रमात् ॥ *
वज्राणां द्रावणार्थाय सत्त्वं भूनागजं श्रेयः ।
तदेव परमं तेजः सूतराजेन्द्रवज्रयोः ॥

Essence of Earthworms. *

Gold is the essence of earthworms growing in the vicinity of gold mines. The nature of the essence of other earthworms is similarly ascertained with reference to the nature of their place of birth. Essence

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* द्वितीय खण्डे २३४ पृष्ठं द्रष्टव्यम् ।
* See page 234, Vol. II,

of earthworms (whether gold, silver, iron, or copper) is useful for the purpose of liquefaction of diamonds and other hard stones. It also increases the potency of mercury and diamonds.

खरसत्त्वम् ।

धौतं भूनागसम्भूतं मर्दयेद् भृङ्गजद्रवैः ।
निम्बुद्रवैश्च निर्गुण्ड्याः स्वरसैस्त्रिदिनं पृथक् ॥
तद्द्रावणगणोपेतं संमर्द्य वटकीकृतम् । ❀
निरुध्य दृढमूषायां द्विदण्डं प्रधमेद् दृढम् ॥
स्वतः शीतं समाहृत्य पट्टके विनिवेश्य तत् ।
रवकान् राजिकातुल्यान् रेणूनतिभरान्वितान् ॥
द्वादशांशार्कसंयुक्तान् ध्मात्वा तान् रवकान् पचेत् ।
प्रक्षाल्य रवकानाशु समादाय प्रयत्नतः ।
वज्रादिद्रावणं तेन प्रकुर्वीत यथेप्सितम् ॥
खरसत्वमिदं प्रोक्तं रसायनमनुत्तमम् ।
द्वित्रमूषासु वैकस्यां सत्त्वं भवति निश्चितम् ॥

Khara-sattwam.

Essence of earthworms is to be cleansed with water, and rubbed for one day each with the juice of bhringa-raja, nimboo (lemon fruit), and nirgundi. It is then to be rubbed with the Dravana-varga * and

* प्रथम खण्डे ३०५ पृष्ठं द्रष्टव्यम् ।
See page 305, Vol. I.

made into a lump, which is to be confined in a strong crucible, and heated steadily for forty eight minutes. When cooled of itself, the contents of the crucible are to be taken out and kept on a piece of smooth stone slab from which are to be collected the heavy metallic dusts of the shape of mustard seeds. These are to be mixed with one twelfth their weight of copper, and again heated in a crucible. The metallic dust is then to be separated from foreign matter by being washed off with water. It is then to be used for the liquefaction of diamond, etc. It is called khara-sattwam. It is not a good rasayanam (a medicine which can prevent and cure senile decay).

भूनागस्य श्रेष्ठसत्त्वपातनविधिः ।

भूमिनागान् समादाय चतुःप्रस्थमितान् शुभान् ।
सुवर्णरूप्यताम्रायस्कान्तसम्भूतभूमिजान् ॥
प्रक्षाल्य रजनीतोयैः शीतलैश्च जलैरपि ।
उपोषितं मयूरं वा शूरं वा चरणायुधम् ॥
क्रमेण चारयित्वाऽथ तद्विष्ठां समुपाहरेत् ।
क्षाराम्लैः सह संपेष्य विशोष्य च खरातपे ॥
ततः खर्परके क्षिप्त्वा भर्जयित्वा मसीं चरेत् ।
मसीं द्रावणवर्गेण संयुक्तां संप्रमर्दिताम् ॥❀

* प्रथमखण्डे ३०५ पृष्ठं द्रष्टव्यम् ।

निरुध्य कोष्ठिकामध्ये प्रधमेद् घटिकाद्वयम् ।
शीतलीभूतमूषायाः खोटमाहृत्य पेषयेत् ॥
प्रक्षाल्य रवकानाशु समादाय प्रयत्नतः ।
सुवर्णरेणुवद् ध्मात्वा नवं कृत्वा नियोजयेत् ॥

Extraction of the best essence of earthworms.

Four prasthas (4 × 64 tolas) of earthworms are to be collected from the vicinity of mines of gold, silver, copper, or load-stone, and are to be washed by means of turmeric juice and cold water. These are then to be gradually made to be eaten by a hungry peacock, boar, or cock, and its stool collected. This stool is to be rubbed with ksharas and amlas, dried by the intense rays of the sun, and then fried in an earthen pot till it turns as black as ink. This black powder is to be rubbed with the ingredients which facilitate the melting of hard metal (see page 305, Vol. I.), and then heated for forty eight minutes by means of a bellows. When the crucible is cooled, the contents are to be powdered and washed off, and the metalic dust to be collected carefully. This dust is to be mellted like gold dust, and then used as necessary.

अनन्तरोक्तभूनागसत्त्वस्य गुणाः ।

भूनागोद्भवसत्त्वमुत्तमतमं श्रीसोमदेवोदितं
दत्तं पादमितं द्विशाणकनकेनैकां गतेनोर्मिकाम् ।*

* उर्मिकामंगुरीयकम् ।

तद्धौताम्बुविलेपनं स्थिरचरोद्भूतं विषं नेत्ररुग्
शूलं मूलगदं च कर्णजरुजो हन्यात् प्रसूतिग्रहम् ॥

Use of the aforesaid essence.

Essence of earthworms, as extracted in the aforesaid manner, is the best of all such essences. The present process was described by Soma-deva (author of Rasendra Churamani). One eighth tola of this essence, combined with half a tola of gold, is to be made into a finger-ring. The water into which this ring is kept immersed for some time can, by external application only, do away with poisons, both organic and inorganic, eye diseases, colic, piles, diseases affecting the ears, and troubles attending child-birth.

भेषजेषु रसप्राधान्यम् ।

अल्पमात्रोपयोज्यत्वादरुचेरप्रसङ्गतः ।
क्षिप्रमारोग्यदायित्वादोषधिभ्योऽधिको रसः ।
असाध्या व्याधि या प्रोक्ता ओषधिभिश्चिकित्सया ।
साध्या सा प्रायशो दृष्टा रसचिकित्सनेन हि ॥
उपरसं लुहं विषं ससूतं रस उच्यते ॥
रसात् परतरं नास्ति त्रिषु लोकेषु भेषजम् ।
मृतानि लोहानि रसीभवन्ति
निघ्नन्ति युक्तानि महामयानि ।

अभ्यासयोगाद् दृढदेहसिद्धिं
कुर्वन्ति रुग्जन्मजराविनाशम् ॥

Superiority of metallic drugs.

A medicine, prepared mainly from mercury and minerals, is superior to that prepared from herbs, in as much as (1) the former can be administered in much smaller doses than the latter ; (2) it does not give rise to aversion in the patient who takes it ; (3) it cures diseases more quickly than the latter ; and (4) it cures diseases which are considered incurable by medicines prepared from herbs. Medicines prepared from mercury, with or without the addition of other minerals, poison, etc. are the best of all the medicines known to the world.

Incinerated metals assume, to a certain extent, the properties of mercury. They can also cure diseases which are troublesome and attended with complications. If used for a long time, they can not only cure diseases but also strengthen the body and cure and prevent senile decay.

चतुर्थोऽध्यायः ।

अथ रत्नानि ।

जातौ जातौ यदुत्कृष्टं तद्धि रत्नं प्रचक्षते ।
रत्नञ्च वरपाषाणं रमन्ते यत्र मानवाः ॥

रत्नानां प्रकाराः ।

वज्रं मरकतं चैव माणिक्यं मौक्तिकं तथा ।
नीलमणिर्गोमेदं च वैदूर्य्यं दग्धहीरकम् ॥
स्फटिकं चन्द्रकान्तं च सूर्य्यकान्तं प्रवालकम् ।
कर्केतं पुष्परागं च राजावर्त्तं च भीष्मकम् ।
एते हि मणयो ज्ञेयाः सूतबन्धनकारकाः ॥
पालङ्कं रुधिरं पूत्ति तार्त्तजं पीलु चोपलम् ।
सुगन्धिकं च विज्ञेया उपरत्नानि सप्तकम् ॥
यत्नतस्ते प्रयोक्तव्या रसे रसायने तथा ॥*

* सर्वेषां रत्नोपरत्नानां विस्तृतविवरणार्थं प्रधानतो निम्नलिखिताः ग्रन्था द्रष्टव्याः — बृहत्संहिता, भोजकृतयुक्तिकल्पतरुः, विष्णुधर्मोत्तर-पुराणम्, अग्निपुराणम्, गरुड़पुराणम्, तथागस्त्यप्रणीतं रत्नशास्त्रम् ।

CHAPTER 1V.

Ratnas (Gems).

Gems are precious stones. The best of them are as follows :—(1) Vajram (diamond), (2) marakata (emerald), (3) manikyam (rubies), (4) mucta (pearls), (5) nila-mani (sapphire), (6) gomedam (zercon), (7) vaiduryam (oriental cat's eye), (8) dagdha-hirakam or vaikrantam (garnet), (9) sphatikam (quartz), (10) chandra-kantam (moon-stone), (11) surya-kantam sun-stone), (12) pravalam (coral), (13) karketam (chrysoberyl or chrysolyte), (14) pusparaga (topaz), (15) rajavarta (lapis lazuli), and (16) bhismakam (a kind of anti-poisonous white quartz).

These gems are used in consolidating mercury.

The following are some of the upa-ratnas or minor gems :—(1) palanka (onyx), (2) rudhiram (carnelian), (3) puttika (peridote or bottle-green stone), (4) turkshajam (turquoise, biraja, or peroja), (5) pilu (jade), (6) upalam (opal, chalcedony, and agate), and (7) sugandhikam (spinel),

All these ratnas and uparatnas may be used in the preparations of mercury as well as in preparing medicines meant for curing and preventing diseases and senile decay.

* For a detailed account of these stones, see Vrihat Sanhita of Barahamihira (Ist century B. C.), Jukti- kalpa-taru of Bhoja-raja, Vishnudharmottara puranam, Agnipuranam, Garura-puranam. Ratna-shastram by the sage Agastya, etc.

पञ्चरत्नम् ।

(१)

पद्मरागेन्द्रनीलाख्यौ तथा मरकतोत्तमः ।
पुष्परागश्च वज्राख्यः पञ्च रत्नवराः स्मृताः ॥

The Five Gems.

(1)

The following five are reckoned to be gems of superior quality :—(1) padma-raga (ruby), (2) indra-nila (sapphire), (3) marakata (emerald), (4) puspa-raga (topaz), and (5) hiraka (diamond).

(२)

नीलकं वज्रकं चेति पद्मरागश्च मौक्तिकम् ।
विद्रुमं चेति विज्ञेयं पञ्चरत्नं मनीषिभिः ॥

(2)

The following five are gems in ordinary use :—sapphire, diamond, ruby, pearl, and coral.

ग्रहरत्नानि (नवरत्नम्) ।

माणिक्यमुक्ताफलविद्रुमाणि
तार्क्ष्यं च पुष्पं भिदुरं च नीलम् ।*
गोमेदकं चाथ विदूरकं च
क्रमेण रत्नानि नवग्रहाणाम् ॥

* तार्क्ष्यमिति मरकताख्यं पाषाणम् । भिदुरमिति हीरकम् ।

Gems favourite to the planets.

Manikya (ruby), mucta (pearl), pravala (coral), turkshya (emerald), puspa-raga (topaz), hiraka (diamond), nila-mani (sapphire), gomedam (zercon), and vaiduryam (oriental cat's eye)—These nine gems are favourites, respectively, to the nine planets, viz. Sun, Moon, Mars, Mercury, Jupiter, Venus, Saturn, Rahu (Dragon's head), and Ketu (Dragon's tail). *

व्यवहारयोग्यरत्नानि ।

रसे रसायने दाने धारणे देवतार्चने ।
सुलक्षणानि सुजातीनि रत्नान्युक्तानि सिद्धये ॥

Gems fit for use.

Only gems of excellent qualities should be used in mercurial preparations, in medicines meant to cure and prevent diseases and senile decay, in making gifts to objects of charity (such as priests, astrologers, etc), in being used by one's own self as an article of jewellery conducive to health and happiness, and in making offerings to God. Gems of inferior quality are abortive for each of these purposes.

* In addition to these nine planets, the Hindu Astronmy recognises five minor planets (See Brihat Parashara Hora Shastram).

अथ वज्रम ।

हीरकः पुंसि वज्रोऽस्त्री चन्द्रो मणिवरश्च सः ।
हीरश्च रत्नमुख्यं च सूचीमुखं वरारकम् ॥
अभेद्यमशिरं दृढ़ं षट्कोणं भार्गवं तथा ।
बहुधारश्च वज्राह्वं शतकोटी महामणिः ॥
आयुःप्रदं झटिति सद्गुणदं च वृष्यम्
दोषत्रयप्रशमनं सकलामयघ्नम् ।
सूतेन्द्रबन्धवधसद्गुणकृत् सुदीपि
मृत्युञ्जयं तदमृतोपममेव वज्रम् ॥

Vajra or Hiraka (Diamond).

Diamond is increaser of longevity. It makes its good qualities felt quickly. It is nutritious, pacifier of the three doshas, and curer of all the diseases. It improves the quality of the consolidation and killing of mercury, is an increaser of the power of digestion, is an enemy of death, and is like nectar itself.

वज्राणां वर्णाः ।

हीरः श्वेतः स्मृतो विप्रो लोहितः क्षत्रियः स्मृतः ।
पीतो वैश्योऽसितः शूद्रश्चतुर्वर्णात्मकश्च सः ॥
रसायनवरो विप्रः सर्वसिद्धिप्रदायकः ।
स्वल्परसायनः क्षत्रः सफलो रोगनाशने ॥

वैश्यो धनप्रदः प्रोक्तस्तथा वादे फलप्रदः ।
शूद्रो नाशयति व्याधीन् वयःस्तम्भं करोति च ॥

Colour of Diamonds.

Diamonds are of four different colours, viz, white, red, yellow, and black. The white variety is beneficial in all respects, and is a rasayanam or curer and preventer of diseases and senile decay. The red variety also is, to a certain extent, a rasayanam. The yellow variety is a giver of wealth (if worn with a ring), and is useful in alchemical operations. The black variety is a destroyer of diseases and a preventer of senile decay.

वज्राणां भेदान्तरम् ।

(१)

अष्टास्रं वाऽष्टफलकं षट्कोणमतिभासुरम् ।
अम्बुदेन्द्रजलाभासं शुभ्रं पुंवज्रमुच्यते ॥
तदेव चिपिटाकारं स्त्रीवज्रं वर्त्तुलायतम् ।
वर्त्तुलं कुण्ठकोणाग्रं किञ्चिद्गुरु नपुंसकम् ॥

Another Classification of Diamonds.

(I)

Diamonds are of three kinds, viz. (1) masculine, (2) feminine, and (3) neuter. The former have six or eight angles or eight faces. They are very bright, and resemble, in lustre, rain drops falling at the time

of the appearance of a rainbow in the sky. They are flat-shaped, whereas feminine diamonds are cylindrical, depressed at the extremities, and are slightly heavy.

(२)

सुवृत्ताः फलसम्पूर्णास्तेजोयुक्ता बृहत्तराः ।
पुरुषास्ते समाख्याता रेखाविन्दुविवर्जिताः ॥
रेखाबिन्दुसमायुक्ताः षड़स्रास्ते स्त्रियः स्मृताः ।
त्रिकोणाः पत्तला दीर्घा विज्ञेयास्ते नपुंसकाः ॥

(2)

Masculine diamonds are well-rounded, well-faced, bright, comparatively big in size, and devoid of lines and spots.

Feminine diamonds have six angles and are full of spots and lines. The neuter diamonds are three-angled, thin, and elongated.

वज्रभेदानां गुणाः ।

वज्रेषु पुरुषाः श्रेष्ठा वेधक रसबन्धकाः ।
स्त्रियः कुर्वन्ति कायस्य कान्तिं स्त्रीणां सुखप्रदाः ॥
नपुंसकास्त्ववीर्य्याः स्युरकामाः सत्त्ववर्जिताः ।
स्त्रियः स्त्रीभ्यः प्रदातव्यं क्लीवं क्लीवे प्रयोजयेत् ॥
सर्वेभ्यः सर्वदा देयाः पुरुषा वीर्य्यवर्द्धनाः ।
पुत्रकामा न धारयेन् नारी वज्रं कदाचन ॥

Merits of different kinds of diamonds.

Masculine diamonds are the best of all. They are able to help the transmutation of metals and to consolidate mercury. Feminine diamonds bring happiness to women and enhance their beauty. Neuter diamonds are impotent, useless, and devoid of essence.

Feminine diamonds are to be worn by women, neuter ones by hermaphrodites, but masculine diamonds may be worn always by any person, male, female, or hermaphrodite. A woman who wants to give birth to a son should on no account wear a diamond.

उत्तमवज्रस्य लक्षणानि ।

(१)

रत्नश्रेष्ठतमं वज्रं नीचे गोमेदविद्रुमे ।
नायसोल्लिख्यते रत्नं हित्वा मौक्तिकविद्रुमौ ॥
पाषाणेनापि च प्राय इति रत्नविदो जगुः ।
न जरां यान्ति रत्नानि विद्रुमं मौक्तिकं विना ॥
गुरुता सर्वरत्नानां गौरवाधारकारकम् ।
वज्रे तद्वैपरीत्यं हि सूरयः परिचक्षते ॥
श्रेष्ठं वज्रं लघु ज्ञेयं तरत्यम्भसि तत् खलु ।
पञ्चदोषैर्विनिर्मुक्तं स्निग्धं च चन्द्ररश्मिवत् ॥

Characteristics of good Diamond.

(1)

Vajram or diamond is the best of all gems, whereas gomeda (zercon) and pravala (coral) are inferior to the rest. None of the gems, except pearl and coral, can be scratched by iron, or even by stones, generally. None of the gems, except pearls and corals, undergoes decay. Heaviness is generally an indicator of preciousness in gems; but the case is quite the reverse with diamonds. Diamonds of superior quality are so light as to float on water. They are free from the five defects (to be described below) and are as soothing as moon's rays.

(२)

यत् पाषाणतले निकाषनिकरे नोद्घृष्यते निष्ठुरे ।
यच्चान्योपललोहमुद्गरमुखैर्लेखान्न यात्याहनम् ।
यच्चान्यन् निजलीलयैव दलयेद् वज्रेण वा भिद्यते
तज्जात्यं कुलिशं वदन्ति कुशलाः श्लाघ्यं महार्घं
च तत् ॥

(2)

Diamond of an excellent quality is that which cannot be worn out by being rubbed with the surface of even a very hard touch stone; which cannot be cracked even by the sharp edges of other stones, iron instruments, etc; which can easily create a

crack on other substances; and which can be rent asunder by another diamond only. Such diamonds are of a high order and very precious.

अशुभवज्रस्य लक्षणानि ।

भस्माभं काकपादश्च रेखाक्रान्तं च वर्त्तुलम् ।
आधारमलिनं विन्दुत्रासयुक् स्फुटितं तथा ।
नीलाभं चिपिटं रुक्षं तद्वज्रं दोषलं त्यजेत् ॥

Characteristics of bad diamonds.

Diamonds of the following description are bad:—(1) Those which are of ash colour; (2) those which have got spots of the shape of a crow's feet, (3) those which are marked by lines, (4) those which are cylindrical, (5) those which darken or soil their foils or receptacles, (6) those which have got spots, (7) those which have got cracks, (8) those which are rent asunder, (9) those which are of blue colour, 10) those which are flat-shaped, and (11) those which are coarse.

Such diamonds are to be avoided.

सर्वरत्नाणां साधारणदोषाः ।

गारस्त्रासश्च बिन्दुश्च रेखा च जलगर्भता ।*
सर्वरत्नेष्वमी पञ्च दोषाः साधारणा मताः ।
क्षेत्रतोयभवा दोषा रत्नेषु ते लगन्ति न ॥

* गारः कर्दमं मलमित्यर्थः ।

Defects found in gems in general.

The following five are the defects found in gems in general:—dirt, crack, spots, lined spot, and bubble spot.

Gems are not affected by defects in the soil in which they are found or in the water in which they are submerged.

शोधनमारणहीनवज्रस्यावगुणाः ।

अशुद्धं कुरुते वज्रं कुष्ठं पार्श्वव्यथां तथा ।
पाण्डुतापगुरुत्वं च तस्मात् संशोध्य मारयेत् ॥

Evil effects of Diamonds, not properly purified and incinerated.

Diamonds, not properly purified and incinerated, give rise to leprosy, pain in the side ribs, anemia, inflammation, and heaviness of the limbs. Diamonds should, therefore, be properly purified and incinerated.

वज्रस्य शोधनम् ।

प्रथमोविधिः ।

कुलत्थकथितैः स्विन्नं कोद्रवकथितेन वा ।*
यामैकं दोलिकायन्त्रे वज्रं शुध्यति निश्चितम् ॥

* कोद्रवः कोदो इति भाषा ।

Purification of Diamonds.

First process.

Diamond is purified, if it is boiled for three hours, by means of a Dola-Jantram, with the decoction of kulattha or kodrava (a kind of grass paddy).

द्वितीयोविधिः ।

व्याघ्रीकन्दयुतं वज्रं दोलायन्त्रेण पाचितम् ।*
सप्ताहं कोद्रवक्वाथे कौलत्थे विमलं भवेत् ॥

Second process.

Diamond is purified, if it is put inside the tuber of vyaghri (red eranda plant or kantakari), and boiled for seven days, by means of a Dola-Jantram, with the decoction of kodrava and kulattha.

तृतीयोविधिः ।

गृहीत्वा तु शुभं वज्रं व्याघ्रीकन्दोदरे क्षिपेत् ।
महिषीविष्ठया लिप्त्वा करीषाग्नौ विपाचयेत् ॥
निशायां तु चतुर्यामं निशान्ते चाऽश्वमूत्रके ।
सेचयेत् तानि प्रत्येकं सप्तरात्रेण शुध्यति ॥

Third process.

Diamond of excellent quality is to be put inside the tuber of vyaghri (red eranda plant or kantakari).

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* व्याघ्रीति रक्तैरण्डः कण्टकारी वा ।

This is to be covered on all sides with the stool of a she-buffalo, and burnt by means of a fire made of cow-dung cakes burning the whole night, at the close of which the diamond is to be immersed into horse's urine. This process is to be performed seven nights resulting in the purification of the diamond.

चतुर्थोविधिः ।

मेघनादा शमी श्यामा शृङ्गी मदनकोद्रवम् ।
कुलत्थं वेतसं चैवमगस्त्यं सिन्धुवारकः ॥
एतेषां सजलै क्वाथैर्वज्रं जम्बीरमध्यगम् ।
दोलायन्त्रे त्र्यहं पाच्यं एवं वज्रं विशुध्यति ॥

Fourth process.

Diamond is purified, if it is kept inside a lime fruit and boiled for three days by means of a Dola-Jantram with a decoction of meghanada, shami, shyama, shringi, madana, kodrava, kulattha, vetasa, agastya, (vasaka or vaka), and nirgundi, mixed with a sufficient quantity of water.

पञ्चमोविधिः ।

व्याघ्रीकन्दगतं वज्रं मृदा लिप्तं पुटे पचेत् ।
अहोरात्रं समुद्धृत्य हयमूत्रेण सेचयेत् ।
वज्रीक्षीरेण सिञ्चेद् वा तस्यैवं खलु शुद्धये ॥

Fifth process.

Diamond is purified, if it is kept inside the tuber of a vyaghri plant coated on all sides with mud, heated by putam for twenty four hours, and then immersed into horse's urine or milk of snuhi.

षष्ठोविधिः ।

स्वेदयेद् दोलिकायन्त्रे जयन्त्याः स्वरसेन च ।
मणिमुक्ताप्रवालानि यामैकेन विशुद्धये ॥

Sixth process.

Any gem or ratna is purified, if it is boiled in a Dola Jantram for one hour with the juice of jayanti leaves.

वज्राणां मारणम् ।

(१) विप्रवज्रस्य मारणम् ।

प्रथमोविधिः ।

अश्वत्थं बदरी झिण्टी माक्षिकं कर्कटास्थि च ।
तुल्यं स्नुहीपयः पिष्ट्वा वज्रं तद्गोलके क्षिपेत् ।
रुद्ध्वा गजपुटे पाकाद् विप्रवज्रं मृतं भवेत् ॥

Incineration of Diamonds.

(1) *White diamonds.*

First process.

Diamond of white colour is incinerated, if it is heated by Gajaputam, after having been coated on

all sides with a paste made of aswattha, vadari (plum), jhinti, makshikam, and shell of crab, all rubbed together with an equal quantity of milk of snuhi.

द्वितीयोविधिः ।

गारुड़ी गन्धकं तालं बदरीरससंप्लुतम् ।
अश्वत्थस्वरसैर्भाव्यं पुटेत् पिण्डं सरक्तकम् ।
म्रियते तेन योगेन ब्रह्मवज्रं हि तत्त्वतः ॥

Second process.

Diamond of white colour is incinerated, if it is subjected to heat by putam after having been kept inside a lump made of patala-garuri, sulphur, and orpiment, rubbed with the juice of plums, and then subjected to bhavana, first, with the juice of aswattha and then with blood (preferably bug's blood).

(२) क्षत्रियवज्रस्य मारणम् ।

प्रथमोविधिः ।

करवीरं मेषशृङ्गं बदरकमुडुम्बरम् ।
अर्कदुग्धं समं पिष्ट्वा विप्रवन्मारयेन्नृपम् ॥*

(2) *Red diamonds.*

First process.

Diamond of red colour is to be incinerated, if it is heated by Gajaputam, after having been coated

* नृपमिति क्षत्रियवर्णवज्रम् ।

on all sides with a paste made of karabira, mesha-shringi, vadara (plum), udumbara, all rubbed with an equal quantity of milk of arka plant.

द्वितीयोविधिः ।

नीलं च शङ्खचूर्णं च शिलाभूनागशूरणम् ।
म्रियते चत्रवज्रकमेषां मध्ये पुटेन हि ॥

Second process.

Diamond of red colour is incinerated, if it is subjected to heat by putam, after having been confined within a lump made of nila plant (indigo), powdered conch shell, manas-shila, earthworms, and shurana.

(३) वैश्यवज्रस्य मारणम् ।

प्रथमोविधिः ।

बला चातिबला गन्धं पेषयेत् कच्छपास्थि च ।
एतैश्च वारुणीदुग्धैर्म्रियते वैश्यो विप्रवत् ॥

(3) *Yellow diamonds.*

First process.

Diamond of yellow colour is to be incinerated, if it is heated by Gajaputam, after having been coated on all sides by a paste made of bala, atibala, sulphur, shell of tortoise, all rubbed with an equal quantity of the milk of indrabaruni.

द्वितीयोविधिः ।

स्नुह्यर्ककरवीरं च भूनागं दरदं वटः ।
उत्तमैर्वारुणीक्षीरैर्वैश्यानां मारणं पुटैः ॥

Second process.

Diamond of yellow colour is incinerated, if it is subjected to heat by putam after having been rubbed with the milks of snuhi, karabira, bata (banyan), and Indra-varuni, mixed with earthworms and hingula (cinnabar).

शूद्रवज्रस्य मारणम् ।

प्रथमोविधिः ।

रसोनं शूरणं शङ्खं समं पेष्यं मनःशिला ।
वटक्षीरेण मूषान्तर्विप्रवच्छूद्रमारणम् ॥

(4) *Black Diammds.*

First process.

Diamond of black colour is to be incinerated, if it is subjected to heat by Gajaputam, after having been coated on all sides with a paste made of shuranam, garlic, conch-shell, manas-shila, all rubbed with an equal quantity of the milk of banian tree.

द्वितीयोविधिः ।

गन्धाश्मकं घृतं तालं मेषशृङ्गं समांशकम् ।
विषं कान्तं स्नुहीक्षीरं नारीपुष्पं पयःप्लुतम् ।
एभिर्विलिप्तमूषायां धमनात् शूद्रमारणम् ॥

Second process.

Diamond of black colour is incinerated, if it is heated in a crucible, the inner surface of which is coated with a paste made of sulphur, clarified butter, orpiment, ram's horn, aconite, load stone, milk of arka, and menstrual excretion of women—all equal in quantity and rubbed with milk.

स्त्रीनपुंसकभेदेन वज्रानां मारणे वैशिष्ट्यम् ।

स्त्रियस्तेषां म्रियन्ते च तत्तदोषधियोगतः ।
चतुर्णामोषधिव्यूहैर्म्रियते च नपुंसकम् ॥

Special directions.

Feminine diamonds are to be incinerated in the same way as described above. Neuter diamonds are to be incinerated with all the herbs combined, required for the incineration of masculine diamonds of four different colours, as described above.

सामान्येन वज्रमारणम् ।

प्रथमोविधिः ।

त्रिःसप्त कृत्वा तत्तप्तं खरमूत्रेण सेचयेत् ।
मत्कुणैस्तालकं पिष्ट्वा तद्गोले कुलिशं क्षिपेत् ॥
प्रध्मातं वाजिमूत्रेण सिक्तं पूर्व्वोदितक्रमैः ।
भस्मीभवति तद्वज्रं वज्रवत् कुरुते तनुम् ॥

(2) *Incineration of Diamonds, irrespective of colour.*

First process.

Diamond is to be heated and immersed into the urine of ass. Orpiment is to be rubbed with bug's blood and made into a lump, inside which the diamond is to be kept. It is then to be heated strongly and immersed into the urine of horse. Performance of this process for 21 times results in the incineration of the diamond.

द्वितीयोविधिः ।

ऊर्णायुशृङ्गं परिपिष्य पिण्डमेतस्य मध्ये तु निधाय वज्रम् ।
पिण्डेऽथवाऽधाय च वज्रवल्ल्याः पुटत्रयं तस्या रसे विदध्यात् ॥
मृत्युरेवं भवेदस्य वज्राख्यस्य न संशयः ॥

Second process.

Horn of ram is to be rubbed with the juice of asthi-sanhara and made into a lump. Diamond is to be kept inside this lump and subjected to heat by putam. Three such putams result in its incineration. A lump made of asthi-sanhara creeper may be made use of in the place of a lump made of ram's horn.

तृतोयोविधिः ।

द्विवर्षरूढ़कार्पासमूलं कन्यामूलैः सह ।
नारीस्तन्येन संपिष्य तत्र वज्रं निधापयेत् ।
अनेन म्रियते वज्रं पुटपाकविधानतः ॥

Third process.

Diamond is incinerated, if it is heated by putam, after having been kept inside a paste made of the roots of cotton plant of two years' standing and the roots of kanya, all rubbed with a sufficient quantity of human milk.

चतुर्थोविधिः ।

मेषशृङ्गं भुजङ्गास्थि कूर्म्मपृष्ठाम्लवेतसैः ।
गजदन्तसमं पिष्टा वज्रीदुग्धेन गोलकम् ।*
कृत्वा तन्मध्यगं वज्रं मार्यते धमनेन च ॥

Fourth process.

Ram's horn, snake's bone, tortoise shell, amlavetasa, and elephant's tusk—all these are to be pounded and made into a lump by being rubbed with the milk of snuhi. Diamond is incinerated, if it is kept confined within this lump and heated strongly.

* गजदन्त इत्येतस्य स्थले शशदन्त इति पाठान्तरम् ।

पञ्चमोविधिः ।

त्रिवर्षनागवल्ल्यास्तु कार्पासस्याऽथ मूलिका ।
पिष्टा तन्मध्यगं वज्रं मूषामध्ये निरोधयेत् ।
पचेद्गजपुटे तच्च म्रियते पुटसप्तकैः ॥

Fifth process.

Tambula creeper (betel) of three years' standing, as well as roots of a cotton plant are to be rubbed together and made into a paste. Diamond is incinerated, if it is confined within this paste and heated by Gaja putam for seven times, a fresh paste being used each time

षष्ठोविधिः ।

मत्कुणानान्तु रक्तेन सप्तधाऽतपशोषितम् ।
कुलिशं भावितं तद्वच्चूर्णिता च मनःशिला ॥
एते च बदरीपत्रैर्वेष्टयित्वा पुटे पचेत् ।
पुनर्लेप्यं पुनः पाच्यं सप्तधा म्रियते ततः ॥

Sixth process.

Diamond is to be subjected to bhavana with the blood of bugs for seven times, and dried each time in the sun. Manas-shila is also to be similarly treated. Both these things are to be put together, covered by means of plum leaves, and then heated by putam. Performance of this process for seven times results in the incineration of the diamond.

सप्तमोविधिः ।

वज्रं महानदीशुक्तौ क्षिप्रं भाव्यं मुहुर्मुहुः ।
स्नुह्यर्कोन्मत्तकन्यानां द्रवेणैकेन चाह्निकम् ॥
कृष्णाकर्कटमांसे तत्क्षिप्त्वा च वेष्टयेद्बहिः ।
भूनागस्य मृदा सम्यग्ध्मातं भस्मत्वमाप्नुयात् ॥

Seventh process.

Diamond, kept in shells of oyster growing in a big river, is to be subjected to bhavana, quickly and over and over again, with the juices of snuhi, arka, dhatura, and kanya, a separate day being allotted to each of these juices. The diamond is then to be surrounded on all sides with the flesh of black crab. The oyster shells are then to be closed and covered by means of mud, raised by earth-worms. The whole thing is then to be heated strongly resulting in the incineration of the diamond.

अष्टमोविधिः ।

रक्तोत्पलस्य मूलैश्च मेघनादस्य कुट्मलैः ।
पिण्डितैर्वेष्टितं ध्मातं वज्रं भस्म भवत्यलम् ॥

Eighth process.

Diamond is incinerated, if it is heated after having been kept inside a paste, made of the roots of red water-lily and buds of meghanada.

नवमोविधिः ।

कांस्यपात्रे हि भेकस्य मूत्रे वज्रं विनिःक्षिपेत् ।
त्रिःसप्तकृत्वः सन्तप्तं वज्रमेवं मृतं भवेत् ॥

Ninth process.

Diamond is incinerated, if it is heated 21 times and immersed each time into frog's urine, kept in a bell-metal pot.

दशमोविधिः ।

नीलज्योतिर्लताकन्दे घृष्टं घर्मे विशोषितम् ।
वज्रं भस्मत्वमायाति कर्मवज्ज्ञानवह्निना ॥

Tenth process.

Diamond is incinerated, if it is subjected to a necessary amount of heat after having been rubbed with the tuber of a blue jyotismati creeper and dried in the sun.

एकादशोविधिः ।

विलिप्तं मत्कुणस्यास्त्रैः सप्तवारं विशोषितम् ।
कासमर्दरसापूर्णे लौहपात्रे निवेशितम् ॥*
सप्तवारं परिध्मातं वज्रं भस्म भवेत् खलु ।
ब्रह्मज्योतिर्मुनीन्द्रेण क्रमोऽयं परिकीर्त्तितः ॥

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* लौहपात्रे इत्येतस्य स्थले ताम्रपात्रे इत्येतत् पाठान्तरम् ।

Eleventh process.

Diamond is incinerated, if it is smeared with the blood of bugs, dried in the sun, and then heated and immersed into the juice of kasa-marda kept in an iron pot, the whole process being repeated for seven times. This process was described by the great sage Brahma-Jyoti.

द्वादशोविधिः ।

मदनस्य फलोद्भूतरसेन क्षौणिनागकैः ।
कृतकल्केन संलिप्य पुटेद् विंशतिवारकम् ।
वज्रचूर्णं भवेद्वर्य्यं योजयेच्च रसादिषु ॥

Twelfth process.

Diamond is reduced to ashes of an excellent quality, if it is heated by putam for twenty times, after having been smeared each time with a paste, made of earthworms, rubbed with the juice of the fruits of madana tree.

त्रयोदशोविधिः ।

वज्रं मत्कुणरक्तेन चतुर्वारं विभावितम् ।
सुगन्धिमूषिकामांसैः कृत्तैर्विमर्द्य वेष्टयेत् ॥
पुटेत् पुटैर्वाराहाख्यैस्त्रिंशद्वारं ततः परम् ।
ध्मात्वा ध्मात्वा शतं वारान् कुलत्थक्वाथके क्षिपेत् ॥
कुलत्थक्वाथसंयुक्तलकुचद्रवपिष्टया ।
शिलया लिप्तमूषायां वज्रं क्षिप्त्वा निरुध्य च ॥

अष्टवारं पुटेत् सम्यग् विशुष्कैश्च वनोपलैः ।
शतवारं ततो ध्मात्वा निक्षिप्तं शुद्धपारदे ॥
निश्चितं म्रियते वज्रं भस्म वारितरं भवेत् ।
सत्यवाक् चन्द्रसेनको वज्रस्यैतद् विमारणम् ।
दृष्टप्रत्ययसंयुक्तमुक्तवान् रसकौतुकी ॥

Thirteenth process.

Diamond is to be subjected to bhavana with bug's blood for four times. It is then to be covered on all sides with the flesh of rats, cut into pieces, and heated by Baraha-putam for thirty times. It is then to be heated for 100 times and immersed each time in decoction of kulattha. The diamond is then to be heated by putam for eight times after having been confined in a crucible, the inner surface of which is to be coated with a paste made of decoction of kulattha, juice of lakucha, and manas-shila. The diamond is then to be heated for 100 times, and immersed each time in purified mercury, with the result that the diamond is reduced to ashes which can float on the surface of water.

This process was described by the chemist, Chandra Sena, founder of the Chandra dynasty.

चतुर्दशोविधिः ।

हिंगुसैन्धवसंयुक्तक्वाथे कुलत्थजे क्षिपेत् ।
तप्तं तप्तं पुनर्वज्रं भूयाच् चूर्णं त्रिसप्तधा ॥

Fourteenth process.

Diamond is incinerated, if it is heated for 21 times, and immersed each time into the decoction of kulattha, mixed with hingu and saindhava.

पञ्चदशोविधिः ।

वज्रादिसर्वरत्नानां मारणम् ।

रसो हंसं शिला तालं गरुड़ं गन्धटंकणम् ।
भूनागं विमलं वंगं मेषशृङ्गं च चुम्बकम् ॥
शुक्रशोनितसंयुक्तं स्वेदनौषधिभावितम् ।
मूषालेपप्रयोगेन रत्नानां मारणं ध्रुवम् ।
एवं वज्रभवं भस्म वज्रस्थाने नियोजयेत् ॥

Fifteenth process.

General method of Incineration of all the Gems.

Diamond and other gems are incinerated, if heated by putam, after having been confined in a crucible the inner surface of which is coated with a paste made of mercury, hingula, manas-shila, haritala, swarna-makshika, sulphur, tankanam, earth-worms, bimala, vanga, ram's horn, load stone, semen, and blood—all these mixed together and subjected to bhavana with the juices of some of the herbs generally used in incineration of gems.

वज्रस्य व्यवहारः ।

(१)

तद्वज्रं चूर्णयित्वाऽथ किञ्चिट्टङ्कणसंयुतम् ।
खरभूनागसत्त्वेन विंशतिगुणितेन च ।
तुल्यस्वर्णेन तद्ध्मातं योजनीयं रसादिषु ॥

Uses of Diamond.

(1)

The diamond, thus prepared and powdered, should be mixed with a little of borax, khara-satwa (see page 154), twenty times in weight of the diamond, and incinerated gold, equal in quantity to the diamond,—all these are to be rubbed together and heated. The product may be used in medicines.

(२)

त्रिगुणेन रसेनैव संमर्द्य गुटिकीकृतम् ।
मुखे धृतं करोत्याशु चलद्दन्तविबन्धनम् ॥

(2)

Incinerated diamond, rubbed with three times its weight of mercury, and made into a pill, strengthens even a tottering tooth and makes it steady.

(३)

त्रिंशद्भागमितं हि वज्रभसितं स्वर्णं कलाभागिकं
तारं चाष्टगुणं सितामृतवरं रुद्रांशकं चाभ्रकम् ।

पादांशं खलु ताप्यकं वसुगुणं वैक्रान्तकं षड्गुणं
भागोऽप्युक्तरसे रसोऽयमुदितः षाड्गुण्यसंसिद्धये ॥

(3)

Thirty parts of incinerated diamond, four parts of gold, eight parts of silver, eleven parts of white shankhi, four parts of mica, eight parts of swarnamakshika, and six parts of vaikranta—all these are to be mixed together and used with mercury for the enhancement of its properties by six times.

(४)

सूतभस्मार्द्धसंयुक्तं मृतवज्रस्य भस्मकम् ।
मृताभ्रसत्त्वमुभयोस्तुलितं परिमर्दितम् ॥
क्षौद्राज्यसंयुतं प्राज्ञैर्गुञ्जामात्रं च सेवितम् ।
निहन्ति सकलान् रोगान् परमेतद् रसायनम् ॥

(4)

Ashes of diamond, with half its quantity of incinerated mercury, ashes of the essence of mica, equal in quantity to both,—all these are to be rubbed together and taken in doses of one racti a day with honey and clarified butter. It cures all the diseases. It is a great rasayanam.

वज्रस्य मृदूकरणम् ।

मातुलुंगान्तरे वज्रं रुद्ध्वा लि[illegible]न् मृदा बहिः ।
पुटेत् पश्चात् गजाख्ये हि शतशो यत्नतो धीमान् ॥

नागवल्ल्याद्रवैर्लिप्तं तत्पत्रेणैव वेष्टयेत् ।
भूमध्ये च स्थितं यावत् तद्वज्रं मृदुतां व्रजेत् ॥

Softening of Diamonds.

Diamond is to be confined within a matulunga fruit, covered on all sides with mud. It is then to be subjected to heat by Gaja-putam for a hundred times. Next is it to to smeared with the juice of tambula (betel) leaves, wrapped up with the leaves of the same creeper, and buried deep into the earth for some time resulting in the softening of the diamond.

वज्रस्य द्रुतिः ।

(१)

वज्रवल्ल्यन्तरस्थं च कृत्वा वज्रं निरुत्थितम् ।
अम्लभाण्डगतं स्वेद्यं सप्ताहाद् द्रवतां व्रजेत् ॥

Liquefaction of diamond.

Ashes of diamond, incapable of being restored to their former condition, are to be kept inside an asthisanhara creeper and immersed into a vessel filled with a sour vegetable juice (such as lime juice), and then heated for seven days with the result that it turns into a liquid.

सर्वरत्नानां द्रुतिः ।

(२)

रामठं पञ्चलवणं क्षाराणां त्रितयं तथा ।
मांसद्रवोऽम्लवेतसश्चुल्लिकालवणं तथा ॥
स्थूलं कुम्भीफलं पक्वं तथा ज्वालामुखी शुभा ।*
द्रवन्ती च रुदन्ती च पयस्या चित्रमूलकम् ॥
दुग्धं स्नुह्यास्तथार्कस्य सर्वं संमर्द्य यत्नतः ।
गोलं विधाय तन्मध्ये प्रक्षिपेत् तदनन्तरम् ॥
गुणवन्नवरत्नानि जातिमन्ति शुभानि च ।
भूर्जेण गोलकं कृत्वा सूत्रेणावेष्ट्य यत्नतः ॥
पुनर्वस्त्रेण संवेष्ट्य दोलायन्त्रे निधाय च ।
सर्वाम्लयुक्तसन्धानपरिपूर्णघटोदरे ॥
अहोरात्रत्रयं यावत् स्वेदयेत् तीव्रवह्निना ।
तस्मादाहृत्य संक्षाल्य रत्नजां द्रुतिमाहरेत् ॥
रत्नतुल्यप्रभा लघ्वी देहलोहकरी शुभा ॥

Liquefaction of all the gems.

(2)

Hingu, five salts, the three ksharas, that variety of amla-vetasa which can decompose flesh into a liquid, nava-sara, well-developed and

* कुम्भीफलमिति जयपालबीजम् । ज्वालामुखीति भल्लातकम् ।

well-ripened jayapala seeds, bhallataka, dravanti, rudanti, bidari, chitraka roots, milks of snuhi and arka—all these are to be rubbed together and made into a lump, into which is to be kept any of the nine gems of excellent quality. The lump is then to be wrapped up with leaves of bhurja (birch) tree, and again covered with a piece of cloth. It is then to be boiled by means of a Dola-Jantram containing fermented liquid mixed with all the amlas. Strong heat is to be applied for 72 hours at a stretch, after which the gem, in a state of liquefaction, is to be collected from inside the vessel. This liquid has the glaze of gems. It is light. It makes the body as strong as iron.

(३)

केतकीस्वरसं ग्राह्यं सैन्धवं स्वर्णपुष्पिका ।*
इन्द्रगोपकसंयुक्तं सर्वं भाण्डे विनिक्षिपेत् ॥
सप्ताहं स्वेदयेत् तस्मिन् वैक्रान्तं द्रवतां व्रजेत् ।
लोहाष्टके तथा वज्रे वापनात् स्वेदनाद् द्रुतिः ॥
जायते नात्र सन्देहो योगस्यास्य प्रभावतः ।
कुरुते योगराजोऽयं रत्नानां द्रावणं परम् ॥

(3)

Juice of ketaki flower, rock-salt, swarna-flower, and indragopa insect—all these are to be kept in a vessel. Diamond and all the other stones, and

* स्वर्णपुष्पीति स्वर्णयूथी विषलाङ्गली वा ।

metals are liquefied, if mixed and boiled for seven days with this solution.

वज्रविकारशान्तिः ।

सितामधुघृतैः सार्द्धं गोदुग्धं दिनसप्तकम् ।
विधिना सेवितं हन्ति वज्रदोषं चिरोत्थितम् ॥

Removal of evil effects of diamond, not properly incinerated.

Cow's milk, taken for seven days with sugar-candy, honey, and clarified butter, does away with the evil effects of diamond, not properly incinerated.

अथ सर्वरत्नानां शोधनक्रमः ।

व्याप्नुवन्त्यङ्गमङ्गानि तैलबिन्दुरिवाम्भसि ।
न विना शोधनं सर्वे धातवोमणयोऽपि च ॥
रोगोपशमकर्त्तारः शोधनं तेन वक्ष्यते ।
शोधनैर्मारणै र्हीना हेयास्ते विषवत् सदा ॥

Purification of Gems in general.

Metals, minerals, and gems do not spread through the different parts of the body, if not properly purified. They are positively harmful, if used without purification and incineration.

तेषां शोधनस्य सामान्यविधिः ।

(१)

पुंवज्रं गारुड़ोऽङ्गारं माणिक्यं पुष्पकं तथा ।
वैदूर्य्यकं च गोमेदं मौक्तिकं च प्रवालकम् ॥
एतानि नवरत्नानि सदृशानि सुधारसैः ।
शोधितानि यथाविधि मारितानि च यत्नतः ॥
शुध्यत्यम्लेन माणिक्यं जयन्त्या मौक्तिकं तथा ।
विद्रुमं क्षारवर्गेण तार्क्ष्यं गोदुग्धतस्तथा ॥
पुष्परागश्च सन्धानैः कुलत्थक्काथसंयुतैः ।
तण्डूलीयजलैर्वज्रं नीलं नीलीरसेन वा ।
रोचनाभिश्च गोमेदं वैदूर्यं त्रिफलाजलैः ॥

General Process of purification of gems.

(1)

Masculine diamond, emerald, sapphire, ruby, topaz, cat's eye, zercon, pearl, and coral—these nine gems are like nectar itself, if purified and incinerated in the prescribed manner.

(1) Ruby, (2) pearl, (3) coral, (4) emerald, (5) topaz, (6) diamond, (7) sapphire, (8) zercon, and (9) cat's eye—these nine gems are purified by being boiled with tne following, respectively :—(1) a sour vegetable juice, (2) juice of jayanti, (3) all the ksharas, (4) cow's milk, (5) fermented liquids mixed with the decoction of kulattha, (6) juice of tanduliya,

(7) juice of indigo, (8) go-rochana (dried bile of a cow sometimes found deposited in its horns), and (9) decoction of triphala.

(२)

कुलत्थस्य पचेद्द्रोणं वारिणाष्टगुणेन च।
तेन पादावशेषेण क्वाथ्याश्च मणयः शिलाः॥
आतपे त्रिदिनं शुष्कं क्वाथसिक्तं पुनः पुनः।
एवं शुध्यति तत् सर्वं मारणीयं ततः परम्॥

(2)

One drona of kulattha is to be boiled with eight dronas of water. Gems and stones are to be boiled with this decoction. They are then to be dried in the sun for three days, saturated all this while with the same decoction, put upon them over and over again. This is how the gems are purified.

(३)

अम्लक्षारविपाचितं तु सकलं लोहं विशुद्धं भवेत्।
माक्षिकोऽपि शिलाऽपि तुत्थगगनं तालं च
सम्यक् तथा॥
मुक्ताविद्रुमशुक्तिकाऽथ चपला शुद्धा वराटाः शुभाः।
जायन्तेऽमृतसन्निभाः पयसि च क्षिप्तः शुभः
स्याद्बलिः॥

(3)

All sorts of metals, makshika, manas-shila, tutthaka, abhra, haritala, mucta (pearl), pravala (coral), shucti (oyster-shell), chapala, and cowri-shells are purified, if boiled with a solution of vegetable acids and alkalis (ksharas). Sulphur is purified, if boiled in the same way and then immersed (through a piece of dry cloth) into milk.

(४)

१७२ पृष्ठे षष्ठोविधिर्द्रष्टव्यः।

(4)

See Process VI. page 172

अथ वज्रेतररत्नानां भस्मक्रमः।

प्रथमोविधिः।

लकुचद्रवसंपिष्टैः शिलागन्धकतालकैः।
वज्रं विनाऽन्यरत्नानि म्रियन्तेऽष्टपुटैः खलु॥

Incineration of gems other than diamond.

First process.

All the gems, with the exception of diamond, are incinerated, if subjected to heat by putam for eight times, after having been smeared each time with a paste made of manas-shila, gandhaka, and haritala, rubbed with the juice of lakucha.

द्वितीयोविधिः ।

कुमार्या तण्डुलीयेन स्तन्येन च निषेचयेत् ।
प्रत्येकं सप्तधा यत्नात् तप्तं तप्तं च कृत्स्नशः ॥
मौक्तिकानि प्रवालानि तथा रत्नान्यशेषतः ।
चूर्णाद् विविधवर्णानि म्रियन्ते नात्र संशयः ॥

Second process.

Any gem may be incinerated, if it is heated and immersed, for seven times, into the juice of each of the following :—kanya, tanduliya, and human milk.

तृतीयोविधिः ।

वज्रवत् सर्वरत्नानि शोधयेन् मारयेत् तथा ।

Third process.

The rest of the gems may be purified and incinerated in the same way as diamond.

सदोषमणयः परिहर्त्तव्याः ।

(१)

दोषोपसृष्टं मणिमप्रबोधात् बिभर्त्ति यः कश्चन कश्चिदेकम् ।
त बन्धुदुःखश्च सबन्धवित्तनाशादयो दोषगणा भजन्ते ॥

Desirability of avoiding defective gems.

(1)

One who uses a defective gem is subjected to such calamities as loss of friends and wealth, imprisonment, etc.

(२)

चण्डाल एकोऽपि यथाभिजातान् समेत्य दूराद्पहन्ति यत्नात् ।
तथा मणीन् भूरिगुणोपपन्नान् शक्तोऽपि विद्रावयितुं विजातः ॥

(2)

Exactly as a man of noble birth is ruined by coming in contact with a man of low birth and vulgar taste, the good effects produced by a genuine gem are nullified by the contact of bad gems.

सर्वरत्नानां सामान्यगुणाः ।

मुक्ताविद्रुमवज्रेन्द्रवैदूर्यस्फटिकादिकम् ।
मणिरत्नं सरं शीतं कषायं स्वादु लेखनम् ।
चक्षुष्यं धारणात् तच्च पापालक्ष्मीविनाशनम् ॥

General Properties of all the gems.

They are laxative, cool, astringent, swe ,, destroyer of fat, beneficial to eye-sight, and destroyer of vice and misfortune.

अथ मरकतम् ।

मरकतं च तार्क्ष्योत्थं गारुड़ं गरुड़ाङ्कितम् ।*
रौहिणेयं सौपर्णं च गरुड़ोद्गीर्णकं तथा ॥
पाचि च बुधरत्नं च तार्क्ष्यं गारुत्मतं तथा ।
अश्मगर्भं हरिन्मणिः सुलभं तन् न भूतले ॥

प्रशस्तमरकतस्य लक्षणम् ।

हरिद्वर्णं गुरु स्निग्धं स्फुरद्रश्मिचयं शुभम् ।
मसृणं भासुरं तार्क्ष्यं गाढ़ं सप्तगुणं मतम् ॥

MARAKATA (EMERALD).

The following seven are the features of a good emerald :—

(1) green colour, (2) heaviness, (3) softness, (4) radiating rays, (5) smoothness, (6) brightness, and (7) density.

अशस्तमरकतस्य लक्षणम् ।

कपिलं कर्कशं नीलं पाण्डु कृष्णं सलाघवम् ।
चिपिटं विकटं कृष्णं रुक्षं तार्क्ष्यं न शस्यते ॥

* तार्क्ष्यमिति पुरा महर्षिकश्यपप्रमुखमुनिभिरध्युषितं कश्यपीय-ह्रदसन्निहितमधुना तार्किनामधेयं यवनाधिष्ठानम् ।

Characteristics of bad emerald.

A bad emerald is (1) tawny, (2) coarse, (3) blue, (4) pale-black (5) light, (6) flat-shaped (7) ugly, (8) black, and (9) rough.

मरकतस्य गुणाः ।

(१)

ज्वरच्छर्दिविषश्वाससन्निपाताग्निमान्द्यनुत् ।
दुर्नामपाण्डुशोफघ्नं तार्क्ष्यमोजोविवर्द्धनम् ॥

Properties of emerald.

(1)

Emerald, duly incinerated, can cure fever, nausea, poison, asthma, abnormal excess of the three doshas, loss of the power of digestion, piles, anemia, and swelling of the body. It increases vitality.

(२)

तस्मिन् मरकतस्थाने यत्किञ्चिदुपजायते ।
तत्सर्वं विषरोगाणां प्रशमाय प्रकीर्त्त्यते ॥
सर्वमन्त्रौषधिगणैर्यन्न शक्यं चिकित्सितुम् ।
महाहिदंष्ट्राप्रभवं विषं तत् तेन शाम्यति ॥

(2)

Everything growing in a mine of emerald can counteract the evil effects of poison. Poison of a highly venomous snake, incapable of being cured by

all sorts of incantations and herbal drugs, can be done away with by emerald (duly incinerated).

महागुणं मरकतम् ।

अत्यन्तहरिद्वर्णं कोमलमर्चिर्विभेदजटिलं च ।
काञ्चनचूर्णेनान्तः पूर्णमिव लक्ष्यते यच्च ॥
युक्तं संस्थानगुणैः समरागं गौरवे न हीनम् ।
सवितुः करसंस्पर्शात् च्छुरयति सर्वाश्रमं दीप्त्या ॥
हित्वा च हरिद्भावं यस्यान्तर्विनिहिता भवेद् दीप्तिः ।*
अचिरप्रभाप्रभाहतनवशाद्वलसन्निभा भाति ॥
यच्च मनसः प्रसादं विदधाति निरीक्षितमतिमात्रम् ।
तन्मरकतं महागुणमिति रत्नविदां मनोवृत्तिः ॥

Emeralds of superior quality.

Emerald of superior quality is very green, soft, and complex in lustre by the penetration of rays from outside. Its interior appears to be full of dust of gold. It is characterised by a structural excellence and uniformity of colour. It is not light in weight. On sun's rays being reflected upon it, the whole room is illuminated. Without giving up the greenness of its colour, it keeps within itself its inherent lustre. It resembles in luster the beauty of green grass brightened with the effulgence of lightning. Its very sight pleases the mind.

* हरिद्भावमिति हरिद्वर्णस्य अभावम् ।

जात्यमरकतस्य परीक्षा ।

(१)

कृत्रिमत्वं सहजत्वं दृश्यते सूरिभिः सदा ।
घर्षयेत् प्रस्तरे व्यङ्गकाचस्तस्माद् विपद्यते ॥*

Test of Genuine Emerald.

Genuineness of emeralds is tested by experts by rubbing it with a piece of stone. If treated in this way, it will break into pieces, if it is glass. This is not the case with a genuine emerald.

(२)

लेखयेल् लौहभृङ्गेण चूर्णेनाऽथ विलेपयेत् ।
सहजः कान्तिमाप्नोति कृत्रिमो मलिनायते ॥

(2)

An emerald to be tested is to be scratched with an iron fork and then smeared with lime. Thus treated, a genuine emerald waxes in glaze, whereas an artificial one loses its lustre.

(३)

सन्धिविश्लेषितं रत्नमन्यमरकताद् भवेत् ।
श्रेयष्कामैर्न तद् धार्यं क्रेतव्यं वा कथञ्चन ॥

* व्यङ्गः विकृताङ्गः गृहीतमरकताकार इत्यर्थः ।

(3)

The emerald which is broken by another emerald should not be worn or bought.

(४)

चौमेण वाससा घृष्टा दीप्तिं त्यजति पुत्तिका ।*
दीप्तिर्मरकतस्य हि घृष्ट्या चौमेण वर्द्धते ॥

(4)

Puttika (peridote) loses its lustre by being rubbed with a piece of silken cloth, whereas genuine emerald gains in lustre, if treated in the same way.

(५)

समायतनवारिणो भारेण सह तोलतः ।
जात्यहरिणमणेर्भारो निर्णेतव्यो मणीषिभिः ॥
तद्भारतुलितेनैव लाघवात् काचो मन्यते ॥
नीरपूर्णघटे चिप्तद्रव्यापसारितं हि यत् ।
वारि तद्वस्तुना तुल्यमायतने जगुर्बुधाः ॥

(5)

The weight of a genuine emerald is to be ascertained as compared with that of water of the same dimension. The figure, thus obtained, is to be compared with that representing the weight of a piece of stone (to be tested), in relation to the weight

* पुत्रिकेति नामान्तरम् ।

of water of the same dimension. If the second figure is much lower than the first, the stone tested is to be considered glass or something other than an emerald. The water displaced by an article immersed into a pot full of water is regarded to be of the same dimension as the article itself.*

(६)

कस्यचिदनेकरूपैर्मरकतमनुगच्छतोऽपि गुणवर्णैः ।
भल्लातस्य निर्णेतुर्वैशद्यमुपैति वर्णस्य ॥

(6)

Some bhallata (a stone which possesses the colour and some other features of emerald) may appear to resemble a real emerald in colour and other features. The difference between such a stone and emerald can be known by a greater clearness of colour in the latter.

अथ माणिक्यम् ।

माणिक्यं शोणरत्नं च तरुणं लोहितं तथा ।
शृङ्गारी रविरत्नं च रङ्गमणिश्च रागयुक् ॥

तस्य भेदाः ।

माणिक्यं पद्मरागाख्यं द्वितीयं कुरुविन्दजम् ।
सौगन्धिकं तृतीयं स्यात् चतुर्थं नीलगन्धि च ॥

* This is a clear reference to the ancient Indians having a knowledge of specific gravity.

कुशेशयदलच्छायं स्वच्छं स्निग्धं महाद्युति ।
वृत्तायतं समं गात्रं श्रेष्ठं तत् पद्मरागकम् ॥*
विज्ञेयं कुरुविन्दजमतिरक्तं सुशोभनम् ।
सुगन्धिकात् समुत्पन्नं सौगन्धिकं हि पीतभम् ॥
नीलगङ्गाम्बुसंभूतं नीलगर्भारुणच्छवि ।
मांसखण्डनिभं रूपैः कथ्यते नीलगन्धि तत् ॥
पद्मरागो भवेद्विप्रो बाहुजः कुरुविन्दजम् ।
सौगन्धिको भवेद् वैश्यो नीलगन्धि च शूद्रकः ॥

MANIKYA (RUBY).†

Its variety.

Manikya is of four kinds, viz. (1) padma-raga, (2) kuruvindaja, (3) saugandhika, and (4) nilagandhi.

The best of the former is lotus-coloured (i.e. white red), transparent, gladening to the eyes, highly bright, round-shaped, smooth, and heavy.

Kuruvindaja, which grows from a stone named Kuruvindam (corundum), is highly red and beautiful.

Saugandhika, which grows out of sugandhika (spinel), is yellowish red.

Nila-gandhi is generally obtained from the bed of the river, Nila-ganga. ‡ It is red in colour with a bluish lustre emerging from inside.

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* गात्रमिति स्थूलम् ।

† "Ruby" is evidently a contraction of the Sanskrit rabi-ratna" (i.e. the gem favourite to Ravi or the Sun).

‡ One of the tributaries of the river, Ganges, falling into it near Hardwar.

This classification of the rubies is in order of their excellence.

शस्तमाणिक्यस्य लक्षणम् ।

गुरुत्वं स्निग्धता चैव वैमल्यमतिरक्तता ।
स्वच्छता गात्रसाम्यं च दीप्तिश्च वृत्तरूपता ।
सर्वमेतद्विजानीयाच्छस्तमाणिक्यलक्षणम् ॥

Characteristics of good rubies.

These are :—heaviness, softness, freedom from stains, excess of redness, transparency, smoothness and uniformity of structure, brilliance, and roundness of shape.

दुष्टमाणिक्यस्य लक्षणम् ।

(१)

रन्ध्रकार्कश्यमालिन्यरौक्ष्यावैशद्यसंयुतम् ।
चिपिटं लघु वक्रं च माणिक्यं दुष्टमष्टधा ॥

Defects of rubies.

(1)

They are as follows :—holes, ugliness, absence of lustre, roughness, absence of transparency, flatness, lightness, and deformity of size.

(२)

छायाद्वितयसम्बन्धात् द्विच्छायं बन्धुनाशनम् ।
द्विरूपं द्विपदं तेन माणिक्येन पराभवः ॥*
सम्भेदो भिन्नमित्युक्तं शस्त्राघातविधायकम् ।
कर्करं कर्करायुक्तं पशुबन्धुविनाशकृत् ॥
दुग्धेनेव समालिप्तं पुटके यस्तु सम्भवेत् ।
अशोभनं समुद्दिष्टं माणिक्यं बहुदुःखकृत् ॥
मधुबिन्दुसमच्छायं कोकिलं परिकीर्त्तितम् ।
आयुर्लक्ष्मीं यशो हन्ति सदोषं तन् न धारयेत् ॥
रागहीनं जलं प्रोक्तं धनधान्यापवादकृत् ।
धूम्रं धूमसमाकारं वैद्युतं भयमावहेत् ॥

(2)

A ruby with two different kinds of lustre in two different parts of its surface is a destroyer of friends to its wearer. A ruby with a mark resembling crow's foot gives rise to defeat. A crack in a ruby worn causes infliction of injuries by weapons. A ruby with a piece of pebble within it causes the destruction of cattle and friends. A ruby which appears to be coated with milk in a cavity in its body causes much distress. A ruby having the lustre of a drop of honey causes the loss of longevit, , fortune, and fame.

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* द्विपदं काकपादमित्यर्थः ।

A ruby without lustre causes the loss of riches. A ruby with the colour of smoke threatens an accident by lightning.

माणिक्यस्य परीक्षा ।

अप्रणश्यति सन्देहे शिलायां परिघर्षयेत् ।
घृष्टो योऽत्यन्तशोभावान् परिमाणं न मुञ्चति ।
स ज्ञेयः शुद्धजातिस्तु ज्ञेयाश्चान्ये विजातयः ॥

Test of Ruby.

A genuine ruby does not undergo any diminution in lustre, or in weight, even if rubbed with a hard stone. This is not the case with an artificial ruby.

श्रेष्ठपद्मरागस्य लक्षणम् ।

(१)

भानोश्च भासामनुवेधयोगमासाद्य रश्मिप्रकरेण दूरम् ।
पार्श्वानि सर्व्वान्यनुरञ्जयन्ति गुणोपपन्नाः स्फटिकप्रसूताः ॥

Characteristics of excellent Rubies.

(1)

It is a ruby of an excellent quality which endows its surroundings with brilliance when the sun's rays are reflected upon it. Such rubies grow from quartz.

(२)

बालार्ककरसंस्पर्शात् यः शिखां लोहितां वमेत् ।
रञ्जयेदाश्रयं वापि स महागुणउच्यते ॥

(2)

It is a ruby of superior worth which, at the touch of the morning sun, vomits, as it were, red flames, or dyes its surroundings with a red lustre.

(३)

दुग्धे शतगुणे क्षिप्तो रञ्जयेत् यः समन्ततः ।
वमेच्छिखां लोहितां वा पद्मरागः स उत्तमः ॥

(3)

It is an excellent ruby which reddens even a hundred times its weight of milk; or vomits red flames.

(४)

यो मणिर्दृश्यते दूराज्ज्वलदग्निसमच्छविः ।
वंशकान्तिः स विज्ञेयः सर्वसम्पत्तिकारकः ॥

(4)

The gem which appears from a distance to be a blazing fire is called vansha-kanti. It is the giver of all wealth.

(५)

अन्धकारे महाघोरे यो न्यस्तः सन् महामणिः ।
प्रकाशयति सूर्य्याभः स श्रेष्ठः पद्मरागकः ॥

(5)

The best ruby, if kept in dense darkness, illuminates the surroundings with its rays.

(६)

पद्मकोषे तु यो न्यस्तो विकाशयति तत्क्षणात् ।
पद्मरागवरो ह्येष देवानामपि दुर्लभः ॥

(6)

It is a ruby which is very rare even to the gods which, if put within a lotus, makes the latter put forth its blossoms immediately.

माणिक्यस्य परिमानम् ।

(१)

गुञ्जाफलप्रमाणास्तु दशसप्तत्रिगुञ्जकान् ।
पद्मरागस्तुलयति यथापूर्व्वं महागुणः ॥

Weight of rubies.

(1)

A ruby of the shape of a gunja should be 10, 7, or 3 gunjas in weight. The first is better than the second, and the second is better than the third.

(२)

क्रोष्टुकोलफलाकारो द्वादशाष्टाब्धिगुञ्जकान् ।
पद्मरागस्तुलयति यथापूर्वं महागुणः ॥

(2)

A ruby of the shape of a shrigala-kola (jackal plum) weighs 12, or 8, or 7 gunjas. Of these three, the first is more valuable than the second, and the second is more valuable than the third.

(३)

बदरीफलतुल्यो यः स्वरदिग्वसुमाषकः ।
तथा धात्रीफलस्त्रिंशद्विंशतिद्व्यष्टमाषकः ॥

(3)

The ruby which is of the size of a sweet plum fruit should weigh 12, or 10, or 8 mashas. The one which is of the shape of an amalaki fruit should weigh 30, or 20, or 16 mashas.

(४)

बिम्बीफलसमाकारः षड्वसुदशतोलकः ।
अतःपरं प्रमाणेन मानेन न च लभ्यते ॥
यदि लभ्येत पुण्येन तदा सिद्धिमवाप्नुयात् ॥

(4)

A ruby which is of the shape of a bimbi fruit should weigh 6, 8, or 10 tolas. A ruby of a greater weight and dimension is not generally available.

माणिक्यस्य गुणाः ।

माणिक्यं दीपनं वृष्यं कफवातक्षयार्त्तिनुत् ।
भूतवेतालपापघ्नं कर्मजव्याधिनाशनम् ॥

Properties of Ruby.

A ruby (duly purified and incinerated) is an increaser of digestive power. It is nutritious and destroyer of kapha, vayu, and waste. It also does away with the evil influence exerted by ghosts and other evil spirits.

अथ मुक्ता ।

मौक्तिकं मुक्तिका मुक्ता लक्ष्मीर्मुक्ताफलं च तत् ।
विन्दुफलं च भौतिकं तारा च जीवरत्नकम् ।
अन्तःसारः शशिप्रिया चन्द्ररत्नं तदेव हि ॥

अस्या गुणाः ।

(१)

मौक्तिकं शीतलं लघु चक्षुष्यं बलपुष्टिदम् ।
कषायं तदेव स्वादु स्त्रीकान्तिरतिवर्द्धिनी ॥
कफपित्तक्षयध्वंसि कासश्वासाग्निमान्द्यनुत् ।
कान्तिदं वृष्यमायुष्यं भेदि दाहविषप्रणुत् ॥
वारिधिगर्भसंजातं मौक्तिकं खलु वीर्यदम् ।
दीपि च पक्तिरोगाणां नाशकं ज्ञायते हि तत् ॥

Mukta (Pearl).

Properties of Mukta.

Pearl is cool, beneficial to eye-sight, giver of strength and nutrition. It is astringent, sweet, and increaser of beauty and affection in women. It pacifies an excess of vayu and pittam, and is efficacious in cough, asthma, and loss of the power of digestion. It increases beauty, vitality, and longevity. It is laxative and efficacious in inflammation and poison.

Pearls growing in the sea (viz. oyster-pearls, conch-pearls, and fish-pearls) are increaser of the power of digestion and pacifier of all the diseases affecting the digestive organs.

अस्या भेदाः ।

द्विपेन्द्रभेकेन्द्रवराहशङ्खमत्स्याहिशुक्त्युद्भव
वेणुजानि ।
मुक्ताफलानि प्रथितानि लोके तेषां तु शुक्त्युद्भवमेव
भूरि ॥

Varieties of Pearls.

Pearls grow in the following :—elephant, frog, boar, conch, fish, oyster, and bamboo.

(क) गजमुक्ता ।

ऐरावतकुलजानां पुष्यश्रवणेन्दुसूर्य्यदिवसेषु ।
ये चोत्तरायणभवा ग्रहणेऽर्केन्दोश्च भद्रभाः ॥

तेषां किल जायन्ते मुक्ताः कुम्भेषु सरदकोषेषु ।
बहवो बृहत्प्रमाणा बहुसंस्थानाः प्रभायुक्ताः ॥
नैषामर्घः कार्य्यो न च वेधोऽस्तीव ते प्रभायुक्ताः ।
सुतविजयारोग्यकरा महापवित्रा धृता राज्ञाम् ॥

(a) *Elephant-Pearl.*

Elephants of noble origin are those which are descendants of Airavata (owned by kings of Swarga in ancient times), and are born on a Sunday or Monday with the moon appearing to be in the fixed star of Pushya (in the sign of cancer) or Shravana (in the sign of capricorn), at that part of the year which begins after the Winter Solstice and ends with the Summer Solstice, and at a time of the eclipse of the sun or the moon. In the frontal globe on the fore-head or in the place of origin of the tusks of such an elephant grow several pearls of big size and varying structure. They are very bright. They should not be subjected to valuation, neither are they to be perforated. They are givers of sons, victory, and immunity from diseases. They should be worn by kings.

(ख) सर्पमणिः ।

फणिजं मौक्तिकं रम्यं नीलच्छायं महाद्युतिः ।
शृगालकोलधातृकागुञ्जाफलप्रमाणकम् ॥

शस्तेऽवनीप्रदेशे रजतमये भाजने स्थिते च यदि ।
वर्षति देवोऽकस्मात् तज्ज्ञेयं नागसम्भूतम् ॥

(b) *Snake-pearl.*

A snake pearl is beautiful, blue-lustred, and highly brilliant. It may be of three different sizes, viz, of the size of (1) jackal-plum, (2) amalaki fruit, and (3) gunja seed.

The test of genuineness of a snake-pearl is as follows :—

Keep it in a silver pot on a clean piece of open soil. If it is a genuine snake-pearl, it will cause immediately a shower of rain falling from the sky all on a sudden ; otherwise, there will be no such rainfall.

(ग) मीनमुक्ता ।

(१)

गुञ्जाफलसमस्थौल्यं मौक्तिकं तिमिजं लघु ।
पाटलापुष्पसंकाशमल्पकान्ति सुवर्त्तुलम् ॥

(c) *Fish-Pearl.*

(1)

A fish pearl is as big as a gunja fruit. It grows in a kind of whale living in deep oceans. It is light in weight, and has the colour of a patala flower. It is not so bright and is very globular.

(२)

तिमिजं मीननेत्राभं पूतं बहुगुणं बृहत् ।
जायते तत् पयोनिधेर्मध्यचराननेषु वै ॥

(2)

A fish pearl has the appearance of the eyes of a fish. It is sacred, endowed with several properties, and big in size. It grows in the mouth of whales growing in mid-ocean.

(घ) वराहमुक्ता ।

दंष्ट्रामूले वराहाणां शशिकान्तिनिभं हि यत् ।
जायते मौक्तिकं तद्धि बहुगुणं न संशयः ॥

(d) *Hog-Pearl.*

Pearls sometimes grow at the root of the teeth of some hogs. These pearls are as bright as the moon's rays. They possess several merits.

(ङ) वेणुमुक्ता ।

वंशजं शशिसंनिभं हरिच्छ्वेतं हि तन् मतम् ।
रोचना कोमला लघ्वी वंशजं गौरवाद् दृढम् ॥

(e) *Bamboo-Pearl.*

A pearl growing inside a bamboo plant is as bright as the moon's rays. It is greenish white in colour. (It is to be distinguished from vansa-

lochana, a sugar-like substance, sometimes found inside the reeds of a bamboo plant). Vansa-lochana is soft and light, whereas a bamboo-pearl is strong and heavy.

(च) शङ्खमुक्ता ।

शङ्खजं शशिसंनिभं वृत्तं भ्राजिष्णु सुन्दरम् ।
बृहत्कोलप्रमाणं तत् कपोताण्डसमं क्वचित् ॥

(f) *Conch-Pearl.*

A pearl growing in a conch-shell is as white as the moon. It is globular, bright, and beautiful. It is as big as a plum fruit, and sometimes, so big as the egg of a pigeon.

(छ) दर्दुरमुक्ता ।

भेकशीर्षे च जायन्ते मणयो ये क्वचित् क्वचित् ।
भौजंगममणेस्तुल्यास्ते विज्ञेया बुधोत्तमैः ॥

(g) *Frog-Pearl.*

The pearls which sometimes grow in the heads of frogs are like snake-pearls.

(ज) शुक्तिमुक्ता ।

स्वात्यां स्थिते रवौ मेघैर्ये मुक्ता जलविन्दवः ।
शीर्णाः शुक्तिषु जायन्ते ते मुक्ता निर्मलत्विषः ॥

सर्वेषु मौक्तिकेषु हि हीनं स्याच् शङ्खशुक्तिजम् ।
मौक्तिकं जलधौ जातं वीर्यदं पक्तिरोगहा ॥

(h) *Oyster-Pearl.*

Rain drops, falling from the clouds at the time when the sun appears to be in the fixed star of swati (in the sign of Libra), if drunk by oysters, develop in course of time into bright pearls growing inside their shells.

Of all sorts of pearls, those which grow in oysters and conch-shells are inferior to the rest.

The pearls which grow in the ocean (*viz.* those growing in whales, conch-shells, and oyster-shells) are strengthening and efficacious in diseases relating to the digestive organs.

सर्वमौक्तिकानां वर्णभेदः ।

ब्राह्मणस्तु सितः स्वच्छो गुरुः शुक्लः प्रभान्वितः ।
आरक्तः क्षत्रियः स्थूलस्तथारुणोविभान्वितः ॥
वैश्य आपीतवर्णोऽपि स्निग्धः श्वेतः प्रभान्वितः ।
शूद्रः शुक्लवपुः सूक्ष्मस्तथा स्थूलोऽसितद्युतिः ॥

Classification of all the pearls according to colour.

Pearls of the best type are clear, white, heavy, and bright. Those of the second class are thick, with tawny colour and brightness. Those of the third class are slightly yellow, appearing to be smeared

with oil, white, and bright. Those of the fourth class are white, small, thick, and have a black lustre.

शुभमौक्तिकस्य लक्षणम् ।

हृादि श्वेतं लघु स्निग्धं रश्मिवन् निर्मलं बृहत् ।*
ख्यातं तोयप्रभं वृत्तं मौक्तिकं नवधा शुभम् ॥

Characteristics of goodpearls.

A goodpearl is agreeable to eye-sight, white, light, appearing to be smeared with oil, bright as sun's rays, big in size, praised by lookers-on, clear as water, and globular.

अपकृष्टमौक्तिकस्य लक्षणम् ।

रुक्षांगं नोज्ज्वलं श्यावं ताम्राभं लवणोपमम् ।
अर्द्धशुभ्रं च विकटं ग्रन्थिलं मौक्तिकं त्यजेत् ॥

Characteristics of bad pearls.

Pearls of the following description are to be rejected :—coarse, devoid of brightness, tawny-coloured, having the colour of copper, resembling salt in appearance, half-white, ugly, and full of knots.

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* स्नेहेनेव विलिप्तं यत् तत् स्निग्धमिति गद्यते ।

मौक्तिकानां वेधः ।

शङ्खतिमित्रेणवारणवराहभुजगभेकजान्यवेध्यानि ।
अमितगुणत्वाच्चैषामर्घः शास्त्रे न निर्दिष्टः ॥

Perforation of Pearls.

Pearls, other than those which grow in oysters, should not be perforated. Neither should they be set a value to, on account of their scarcity.

अथ नीलम् ।

तृणग्राही तथा नीलं नीलाश्म सौरिरत्नकम् ।
कलिङ्गे सिंहले जातं नीलोपलं शनिप्रियम् ॥
नीलमणिर्द्विधा प्रोक्तं जलनीलेन्द्रनीलके ।
शक्रनीलं तयोर्वरं कथ्यते रत्नकोविदैः ॥
श्वैत्यगर्भितनीलाभं तज्जलनीलकम् लघु ।
कार्ष्णगर्भितनीलाभं सभारं शक्रनीलकम् ॥
रक्तगर्भाम्बुनीलं हि रक्तगन्धि विकथ्यते ।
रक्तमुखी तदेव स्यात् जलनीलेषु तद्वरम् ॥

NILA (SAPPHIRE).

This stone, in ancient times, was procured from Kalinga (modern Orissa including the western part of Bengal) and Ceylone.

Nila is of two kinds, *viz.* Jala-nila and Indra-nila. Of these, the latter is better than the former. The sapphire which is comparatively light and emits a white lustre from inside is Jala-nila, whereas Indra-nila is comparatively heavy, and emits a black lustre from inside.

The Jala-nila which contains a red lustre inside it is called Racta-gandhi or Racta-mukhi nila. It is the best of the Jala-nilas.

श्रेष्ठेन्द्रनीलस्य लक्षणम् ।

एकच्छायं गुरु स्निग्धं स्वच्छं पिण्डितविग्रहम् ।
मृदु मध्ये लसज्ज्योतिः सप्तगुणेन्द्रनीलकम् ॥

Characteristics of a good Indra-nila.

A good indra-nila is of uniform lustre, heavy, appearing to be smeared with an oily substance, transparent, globular, soft, with a play of brilliance inside it.

जलनीलस्य भेदाः ।

कोमलं विहितं रुक्षं निर्भारं रक्तगन्धि च ।*
चिपिटाकृति† सूक्ष्मं च जलनीलं हि सप्तधा ॥

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* कोमलमिति पञ्चवर्णम् । विहितमित्यर्द्धभागेन सम्पूर्णवर्ण-मर्द्धेन कोमलम् ।

† चिपिटाभमिति पाठान्तरम् द्रष्टव्यम् ।

Varieties of Jala-nila.

Jala-nila is of seven kinds, *viz.* (1) that which has got a blending of five different kinds of colour, (2) that which has got a blending of five colours in the one half and only one colour in the other half, (3) that which does not appear to have an oily surface, (4) that which is light, (5) that which has got a play of red lustre inside it, (6) that which is flat-shaped (or, according to a different reading, has the glaze of a chipita or boiled rice baked and hammered into a flat-shape), and (7) that which is small-sized.

ताम्राभनीलमणिः ।

इन्द्रनीलो यदा कश्चित् विभर्त्याताम्रवर्णताम् ।
त्यजेन् न तत् तथा ताम्रौ करवीरोत्पलावुभौ ॥

Copper-coloured sapphire.

A sapphire which is copper-coloured should not be discarded. That is also the case with the two minor stones, *viz.* karabira and utpala (opal), even if they are copper-coloured.

इन्द्रधनुर्नीलम् ।

यस्य मध्यगता भाति नीलस्येन्द्रायुधप्रभा ।
तदिन्द्रनीलमित्याहुर्महार्घ्यं भुवि दुर्लभम् ॥

Rain-bow sapphire.

The sapphire which has got a play of rain-bow, inside it, is very precious and rare in the earth.

महानीलम् ।

यस्तु वर्णस्य भूयस्त्वात् क्षीरे शतगुणे स्थितः ।
नीलतां तन्नयेत् सर्वं महानीलः स उच्यते ॥

Maha-nila.

The sapphire, which, on account of the abundance of its colour, can invest hundred times its weight of milk with a blue colour is called Maha-nila or great sapphire.

अथ गोमेदमणिः ।

गोमेदं राहुरत्नं च स्वर्भानवस्तमोमणिः ।
पिङ्गस्फटिकमेव तत् पीतमणिश्च कथ्यते ॥
गोमेदःसमरागत्वाद् गोमेदं रत्नमुच्यते ।
गोमेदः प्रियकृद् राहोरीषत् पीतारुणप्रभः ॥

Gomedam (zercon).

It is a kind of quartz of a yellowish red colour. A gomeda (literally, cow's fat) is so called simply because it resembles beef's tallow in colour. This stone is of a reddish yellow colour.

गोमेदं परीक्षणीयम् ।

हिमालये वा सिन्धौ वा गोमेदमणिसम्भवः ।
परीक्षा वह्नितः कार्य्या शाणे वा रत्नकोविदैः ॥

Zercon is to be tested.

Zercon is found in the Himalayas and in the Sindhu (river Indus or province of Sind or the sea). The genuineness of this stone is to be tested by means of fire or by a whet-stone.

शस्तगोमेदम् ।

सुस्वच्छगोजलच्छायं स्वच्छं स्निग्धं समं गुरु ।
निर्दलं मसृणं दीप्तं गोमेदं शुभमष्टधा ॥

Good zercons.

Zercons of the following description are good :—(1) having the colour of cow's urine which is very clear, (2) transparent, (3) appearing to be smeared with oil, (4) level-surfaced, (5 heavy, (6) devoid of layers, (7) smooth, and (8) bright.

अशस्तगोमेदम् ।

विच्छायं लघु रुक्षाङ्गं चिपिटं पटलान्वितम् ।
निष्प्रभं पीतकाचाभं गोमेदं न शुभावहम् ॥

Zercon of bad qualities.

These are as follows :—(1) devoid of secondary colour, (2) light, (3) rough-surfaced, (4) flat-shaped, (5) appearing to have a layer, (6) devoid of brightness, and (7) appearing to resemble glass of yellow colour.

गोमेदस्य छायाः ।

सर्वेषां मणिरत्नानां ज्ञायते बुधसत्तमैः ।
छाया चतुर्विधा श्वेता रक्ता पीताऽसिता तथा ॥
गोमेदं पीतरक्ताभं प्राधान्येन प्रदृश्यते ।
छाया चतुर्विधा तस्मिन् दृश्यते नात्र संशयः ।

Secondary Colours of Gems.

Every gem has any of the following sub-colours (in addition to the predominant one) :—(1) white, (2) red, (3) yellow, and (4) black. This is also the case with zercons.

Zercon is principally of reddish yellow colour ; but it must have, in addition, any of the four sub-colours mentioned above.

प्रशस्तगोमेदम् ।

गुरुः प्रभाढ्यः सितवर्णरूपः स्निग्धो मृदुर्वाऽथ महापुराणः ।
स्वच्छस्तु गोमेदमणिर्धृतोऽयं करोति लक्ष्मीं धनधान्यवृद्धिम् ॥

Zercon of highly excellent qualities.

Such a zercon is heavy, brilliant, white, appearing to be smeared with an oily substance, soft, or very ancient (i.e., one which was metamorphosed

long ago into its present state, from the state of a quartz), and transparent. Such a zercon is a giver of wealth and fortune to its wearer.

गोमेदस्य गुणाः ।

गोमेदं कफपित्तघ्नं क्षयपाण्डुक्षयंकरम् ।
दीपनं पाचनं रुच्यं त्वच्यं बुद्धिप्रबोधनम् ॥

Properties of zercon.

Zercon cures an excess of phlegm and pittam. It is beneficial in wasting diseases and anemia. It increases the power of digestion and appetite. It is beneficial to the skin.

अथ वैदूर्य्यम् ।

वैदूर्य्यमभ्ररोहं च वालवायजमं तथा ।
कैतवं केतुरत्नं च प्रावृष्यमभ्ररोहकम् ॥
दूरजं च विदूरजं खराब्दांकुरकं च तत् ।
विलसदुत्तरीयकच्छायागर्भि विदृश्यते ॥
अविदूरे विदूरस्य गिरेरुत्तुङ्गरोधसः ।
कामभूतिकसोमानमनु तस्याकरोऽभवत् ॥

Vaiduryam (Oriental cat's eye and similar stones).

This stone used to be obtained from a mine close by the highest peak of the mount "Vidura", situated

on the border of a country named "Kama-bhuti" (Cambodia ?)

It appears to contain inside it a mark resembling a swinging scarf.

वैदूर्यस्य भेदः ।

(१)

वैदूर्य्यं त्रिविधं ज्ञेयं विदूरगिरिसम्भवम् ।
कृष्णपीतं तथा नीलरक्तं च श्यामशुभ्रकम् ॥

Vaieties of Vaidurya.

This gem is of three different kinds, viz. (1) yellowish black, (2) reddish blue, and (3) white black.

(२)

एकं वेणुपलाशकोमलरुचा मायूरकण्ठत्विषा
मार्जारेक्षणपिङ्गलच्छविजुषा ज्ञेयं त्रिधा छायया ।
यद्गात्रं गुरुतां दधाति नितरां स्निग्धं तु दोषोज्झितम्
वैदूर्य्यं विशदं वदन्ति सुधियः स्वच्छंच तच्छोभनम् ॥

(2)

Vaiduryam is of three different kinds, viz. (1) of the colour of green bamboo leaf, (2) of the colour of peacock's neck, and (3) tawny-coloured like a cats' eye.

Of all these Vaiduryas, those which are commendable are heavy, smooth, devoid of the general defects (referred to before), pellucid, and transparent.

शस्तवैदूर्यस्य लक्षणम् ।

वैदूर्यं श्यामशुभ्राभं समं स्वच्छं गुरु स्फुटम् ।
भ्रमच्छुभ्रोत्तरीयेण गर्भितं शुभमीरितम् ॥

Characteristics of a good Vaiduryam.

The Vaidurya, which is blackish-white, smooth-surfaced, transparent, heavy, bright, and appears to contain inside it a mark resembling a swinging scarf, is commendable.

अशस्तवैदूर्यस्य लक्षणम् ।

श्यामं तोयसमच्छायं चिपिटं लघु कर्कशम् ।
रक्तगर्भोत्तरीयं च वैदूर्यं नैव शस्यते ॥

Characteristics of bad Vaiduryam.

A Vaidurya of the following description is not commendable :—(1) black, (2) water-coloured (3) flat-shaped, (4) light, (5) rough, and (6) containing inside it a mark resembling a swinging scarf of red colour.

वैदूर्यस्य परीक्षा ।

घृष्टं यदात्मना स्वच्छं स्वच्छायां निकषाश्मनि ।
स्फुटं प्रदर्शयेदेतद् वैदूर्यं जात्यमुच्यते ॥

Test of Vaidurya.

The Vaidurya which gains in lustre, if rubbed with a touch-stone, is a genuine one.

वैदूर्यस्य गुणाः ।

वैदूर्य्यं रक्तपित्तघ्नं प्रज्ञायुर्बलवर्द्धनम् ।
पित्तप्रधानरोगघ्नं दीपनं मलमोचनम् ॥

Properties of Vaidurya.

Vaidurya cures hemorrhage; increases knowledge, longevity, and strength; cures diseases due to an excess of pittam; excites power of digestion, and is a laxative.

अथ वैक्रान्तम् ।

वैक्रान्तं दग्धहीरकं नीचवज्रं च ताम्रकम् ।
पुलकं ताम्ररत्नं च ताम्राश्म विकृतं तथा ॥
अष्टास्रश्चाष्टफलकः षट्कोणो मसृणो गुरुः ।
शुद्धमिश्रितवर्णैश्च युक्तो वैक्रान्त उच्यते ॥

VAIKRANTA (GARNET).

Vaikranta has eight or six angles and eight facets. It is smooth, heavy, and has all sorts of colour, pure or mixed,

वैक्रान्तस्य भेदाः ।

(१)

श्वेतो रक्तश्च पीतश्च नीलः पारावतच्छविः ।
श्यामलः कृष्णवर्णश्च कर्वुरश्चाष्टधा हि सः ॥

Varieties of Vaikranta.

(1)

Vaikranta is of the following different colours:—(1) white, (2) red, (3) yellow, (4) blue, (5) pigeon-coloured, (6) green, (7) black, and (8) mixed.

(२)

श्वेतपीतस्तथा रक्तो नीलः पारावतप्रभः ।
मयूरकण्ठसदृशश्चान्यो मरकतप्रभः ॥
देहसिद्धिकरं कृष्णं पीते पीतं सिते सितम् ।
सर्वार्थसिद्धिदं रक्तं तथा मरकतप्रभम् ॥
शेषे द्वे निष्फले वर्ज्ये वैक्रान्तमिति सप्तधा ॥

(2)

Vaikranta is of the following colours:—(1) white, (2) yellow, (3) red, (4) blue, (5) pigeon-colour, (6) the colour of a peacock's neck, and (7) the colour of an emerald.

The black variety is beneficial to health; the yellow one is to be used in the process for manufacturing gold; the white one is to be used in the

process for manufacturing silver (vide the operations of mercury in Vol I). The red variety has an all-round utility. The remaining two, viz., the blue and the pigeon-coloured varieties, are abortive, and should, therefore, be avoided.

वैक्रान्तस्य गुणाः।

(१)

आयुःप्रदश्च बलवर्णकरोऽति वृष्यः।
प्रज्ञाप्रदः सकलदोषगदापहारी ॥
दीप्ताग्निकृत् पविसमानगुणस्तरस्वी।
वैक्रान्तकः खलु वपुर्बललोहकारी ॥
रसायनेषु सर्वेषु पूर्वगण्यः प्रतापवान्।
वज्रस्थाने नियोक्तव्यो वैक्रान्तः सर्वदोषहा ॥

Properties of Vaikranta.

(I)

Vaikranta increases longevity, strength, complexion, nutrition, knowledge, and appetite. It removes all the three doshas and the diseases. It has almost the same properties as diamond. It makes the body as strong as iron. As a rasayanam, the white one is the best. A vaikranta, devoid of all the defects, may be used in lieu of diamond.

(२)

वैक्रान्तो वज्रसदृशो देहलोहकरो मतः।
विषघ्नो रसराजश्च ज्वरकुष्ठक्षयप्रणुत् ॥

(2)

Vaikranta, like diamond, strengthens the body, and cures poison, fever, leprosy, and phthisis. It is also a king of the metallic drugs.

वैक्रान्तस्योत्पत्तिस्थलम्।

विन्ध्यस्य दक्षिणे भागे ह्युत्तरे वाऽस्ति सर्वतः।
विकृन्तयति लोहानि तेन वैक्रान्तकः स्मृतः।
वज्रलक्षणसंयुक्तो दाहघातसहिष्णुस्तत् ॥

Mines of Vaikranta.

Vaikranta is obtained in several parts of the world, and especially in mines situated on the north and south of the Vindhya Hills.

The stone is so named, only because it can cut into pieces all sorts of metals. (The root from which the word has been derived, viz. "krit," means to cut.)

It has many of the characteristics of diamond, and can stand heating and percussion.

वैक्रान्तस्य शोधनम्।

प्रथमोविधिः।

वैक्रान्तकाः स्युस्त्रिदिनं विशुद्धाः
संस्वेदिताः क्षारपटूनि दत्त्वा।

अम्लेषु मूत्रेषु कुलत्थरम्भा-
नीरेऽथवा कोद्रववारिपक्वाः ॥

Purification of Vaikranta

First process.

Vaikranta is purified, if it is boiled for one day each with a solution of ksharas and salts dissolved with (1) the amlas (vegetable acids) (2) urines, and (3) decoction of kulattha, respectively.

It may also be purified, if boiled with a decoction of kodrava (a kind of grass-paddy).

द्वितीयोविधिः ।

कुलत्थक्वाथसंस्विन्नो वैक्रान्तः परिशुध्यति ।

Second process.

Vaikranta is purified, if it is boiled for 3 days with decoction of kulattha.

तृतीयोविधिः ।

प्रशस्तं दग्धहीरकं ध्मापितं सप्तवारतः ।
निर्गुण्डिकारसे क्षिपेत् प्रक्षाल्य स्वच्छवारिणा ।
शुद्धिमायाति तेन तत् ततस्तच्च विमारयेत् ॥

Third process.

Vaikranta is purified, if it is heated for seven times, and immersed each time in the juice of nirgundi, and then washed off with clear water.

चतुर्थोविधिः ।

१६४ पृष्ठे तृतीयोविधिर्द्रष्टव्यः ।

Fourth process.

See Process No. III, page 194.

वैक्रान्तस्य मारणम् ।

प्रथमोविधिः ।

गन्धकं मर्दयेत् सम्यग् निम्बुद्रवेण खल्वके ।
वैक्रान्तं म्रियते पुटैरष्टाभिस्तेन लेपितम् ॥

Incineration of Vaikranta.

First process.

Vaikranta is incinerated, if it is heated by putam for eight times, after having been smeared each time with a paste made of sulphur, rubbed well with lime juice.

द्वितीयोविधिः ।

१६४ पृष्ठे तृतीयोविधि द्रष्टव्यः ।

Second process.

See Process No III, page 194.

तृतीयोविधिः ।

वैक्रान्तेषु च तप्तेषु हयमूत्रं विनिक्षिपेत् ।
पौनःपुन्येन वा कुर्यात् द्रवं दत्वा पुटेदनु ।
अनेनैव प्रकारेण म्रियते दग्धहीरकम् ॥

Third process.

Vaikranta is incinerated, if it is heated by putam as many times as necessary, after having been heated each time in the ordinary way and immersed in the urine of horse.

चतुर्थोविधिः ।

हयमूत्रेण ताम्राश्म सेच्यं तप्तं त्रिसप्तधा ।
ततश्चोत्तरवारुण्याः पञ्चाङ्गे गोलके क्षिपेत् ॥
रुद्ध्वा मूषापुटे पाच्यमुद्धृत्य गोलके पुनः ।
क्षिप्त्वा रुद्ध्वा पचेदेवं यावत् तद्भस्मतां व्रजेत् ॥

Fourth process.

Vaikranta is to be heated and immersed at once in the urine of horse. This process is to be performed for 21 times. The stone is then to be kept inside a lump made of the five different parts (viz. root, leaves, bark, flower, and fruit) of an indra-baruni plant. The lump is then to be confined within a crucible and heated. The stone is next to be kept again inside a lump made in the same way as stated above, put into a crucible, and heated as before. The process of heating in crucibles is to be repeated as many times as are found necessary for the incineration of vaikranta.

वज्रस्थाने वैक्रान्तस्य व्यवहारः ।

भस्मीभूतं हि वैक्रान्तं वज्रस्थाने नियोजयेत् ।
मोक्षमोरटपालाशक्षारगोमूत्रभावितम् ॥*

Use of garnet in place of diamond.

Incinerated garnet is to be subjected to bhavana with cow's urine mixed with a kshara of the following trees :—moksha, morata, and palasha.

वैक्रान्तस्य सत्त्वपातनम् ।

(१)

वज्रकन्दनिशाकल्कफलचूर्णसमन्वितम् ।
तत्कल्कं टंकणं लाक्षाचूर्णं वैक्रान्तसंभवम् ॥
नवसारसमायुक्तं मेषशृङ्गीद्रवान्वितम् ।
पिण्डितं मूकमूषस्थं ध्मापितं च हठाग्निना ॥
सत्त्वं पतति तत्रैव वैक्रान्तस्य न संशयः ।

Extraction of essence of Vaikranta.

(1)

Tuber of shurana, haridra, powdered madana fruit, tankana, powdered laksha (lac insects), ashes of vaikanta, navasara—all these are to be rubbed with decoction of mesha-shringi and made into a lump, which is to be dried, confined in a blind (or

* मोरटं लताकराङ् इति भाषा ।

dumb) crucible, and then heated by a very strong fire. This will result in the issuing of essence which will be found in the crucible.

(२)

सत्वपातनयोगेन मर्दितश्च वटीकृतः ।*
मूषास्थो घटिकाध्मातो वैक्रान्तः सत्वमुत्सृजेत् ॥

(2)

Essence of Vaikranta can be extracted, if the ashes of vaikranta are mixed with the materials required for extraction of essence of all things (see page 47, Vol. II) and heated in a crucible.

वैक्रान्तस्य प्रयोगः ।

(१)

भस्मत्वं समुपागतो विकृतको हेम्ना मृतेनान्वितः †
पादांशेन कणाज्यवेल्लसहितो गुञ्जामितः सेवितः ।
यक्ष्माणं जठरं च पाण्डुगुदजं श्वासं च कासामयम्
दुष्टां च ग्रहणीमुरःक्षतमुखान् रोगान् जयेद् हृत्कृत् ॥

Uses of Vaikranta.

(1)

Incinerated vaikranta with one fourth its quantity of incinerated gold, taken in doses of one racti

* २य खण्डे ४७ पृष्ठं द्रष्टव्यम् ।

† विकृतक इति वैक्रान्तम् ।

a day with a little of powered pippali, clarified butter, and powdered biranga, cures phthisis, diseases affecting the belly, anemia, fistula, piles, asthma, cough, chronic diarrhoea, cavities or ruptures in the lungs, etc. It strengthens the body as well.

(२)

सूतभस्मार्द्धसंयुतं नीलवैक्रान्तभस्मकम् ।
मृताभ्रसत्वमुभयोस्तुलितं परिमर्दितम् ॥
क्षौद्राज्यसंयुतं प्रातर्गुञ्जामात्रं निषेवितम् ।
निहन्ति सकलान् रोगान् दुर्जयानन्यभेषजैः ।
त्रिसप्तदिवसे नृणां गङ्गाम्भ इव पातकम् ॥

(2)

Two parts of incinerated vaikranta of blue colour, one part of incinerated mercury, and three parts of incinerated mica are to be rubbed together. This medicine, taken in doses of one racti a day early in the morning, with a little of honey and clarified butter, cures, in 21 days only, all the diseases incapable of being cured by other medicines.

अथ स्फटिकम् ।

स्फटिकं स्फाटकं स्वच्छं भासुरं स्फाटिकोपलम् ।
धौतशिला सितोपलं शालिपिष्टं शिवप्रियम् ॥

निर्मलोपलकं स्वच्छमणिश्यामररत्नकम् ।
निस्तुषरत्नमेव तत् ज्ञायते रत्नकोविदैः ॥

स्फटिकस्य भेदाः ।

अशोकपल्लवच्छायं दाड़िमबीजसंनिभम् ।
विन्ध्याटवितटे देशे जायते मन्दकान्तिकम् ॥
सिंहले जायते कृष्णमाकरे गन्धनीलके ।
पद्मरागभवे स्थाने त्रिविधं स्फटिकं भवेत् ॥
अत्यन्तं निर्मलं स्वच्छं निस्तुषं स्निग्धगात्रकम् ।
ज्योतिर्ज्वलनमाश्लिष्टमुक्तं ज्योतीरसं हि तत् ॥
तदेव लोहिताकारं राजावर्त्तमुदाहृतम् ।
आनीलं तत्तु पाषाणं प्रोक्तं राजमयं शुभम् ॥
ब्रह्मसूत्रमयं यत्तु प्रोक्तं ब्रह्ममयं हि तत् ॥

Varieties of Sphatika (*Quartz*).

Quartzes are of several varieties. The *manda-kanti* or lack-lustre quartz grows in the forests in the Vindhya hills. They have the colour of green tendrils of asoka tree or of pomegranate seeds. The *black* variety grows in mines of sapphire in Ceylon.

In mines of emerald grow quartz of three different variety. All of them are very clear, transparent, and free from layers. A glare of light emerge from them. The general name for all these

sphatikas is "*jyoti-rasa*". Of these three, the red variety is called "*rajavarta*" (see later); the bluish variety is called "*raja-maya*", and that variety which has got marks like a sacred thread upon its surface is called the "*brahma-maya*".

स्फटिकस्य गुणाः ।

स्फटिकः समवीर्यः स्यात् पित्तदाहार्त्तिशोषनुत् ।
तस्याक्षमालिकाजपाद्ध धत्ते कोटिगुणं फलम् ॥

Properties of Sphatika.

It is neither cold nor warm. It is efficacious in pittam, inflammation, impurities of the blood, and wasting diseases. To count its beads in religious devotion is productive of much good.

स्फटिकनिर्म्मितजलपात्रस्य गुणाः ।

स्फाटिके पेयपात्रे हि रक्षितं विमलं जलम् ।
पवित्रं देहशीतलं पित्तस्य च विनाशनम् ॥

Properties of water kept in a pot made of sphatika.

Pure water, kept in a pot made of sphatika, is cool and pacifier of pittam.

अथ चन्द्रसूर्य्यकान्तौ ।

अमृतांशुकरप्रभं हैमाद्रिशिखरोद्भवम् ।
निर्मलं च प्रभायुक्तं स्फटिकं परिकीर्त्तितम् ॥
तपनस्यातपस्पर्शादुद्गिरत्यनलं हि यत् ।
सूर्यकान्तं विजानीयात् स्फटिकं रत्नसत्तमम् ॥
अमृतांशुकरस्पर्शात् स्रवत्येवामृतोदकम् ।
दुर्लभं तं महारत्नं चन्द्रकान्तं विदुर्बुधाः ॥

THE SUN-STONE AND THE MOON-STONE.

The quartzes which grow in the peaks of the Himalayas are very clear and bright like the moon's rays. Of these, the variety which emits fire on the sun's rays being reflected upon it, is called the Surya-kanta (or sun's favourite). It is the best of all the gems. There is another variety of this quartz, called the Chandra-kanta (or Moon's favourite). This is also a very precious gem, and is very rare. On moon's rays being reflected upon it, drops of water of nectar-like potency are shed by it.

सूर्यकान्तस्य गुणः ।

रविकान्तो भवेदुष्णो निर्मलश्च रसायनः ।
वातश्लेष्महरो मेध्यः पूजनाद् रवितोषकृत् ॥

Properties of Sun-stone.

The Sun-stone is warm, clear, and rasayanam (preventer and curer of senility and diseases). It pacifies an excess of vayu and kapha (phlegm), and increases memory. The planet sun (i.e. its presiding Deity) is propitiated, if this stone is kept carefully.

चन्द्रकान्तस्य गुणाः ।

चन्द्रकान्तस्तु शिशिरः स्निग्धः पित्तास्रतापनुत् ।
शिवप्रीतिकरः स्वच्छो ग्रहालक्ष्मीविनाशनः ॥

Properties of the Moon-stone.

The moon-stone is cool, appearing to be smeared with oil, pacifier of racta-pittam (hemorrhage) and inflammation. It is pleasing to Siva—the Great Deity, and is a remover of the malignant influence of the planets * and misfortune.

चन्द्रकान्तोद्भवोदकस्य गुणाः ।

चन्द्रकान्तोद्भवं वारि पित्तघ्नं विमलं स्मृतम् ।

Properties of Moon-stone water.

This water is absolutely pure and curer of excess of pittam.

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* Properly speaking, the planets do not exert any influence, good or bad, on human destiny. What they actually do is to indicate good or bad luck to human beings (by their peculiar configuration).

अथ प्रवालम् ।

प्रवालं विद्रुमं ज्ञेयमंगारकमणिस्तथा ।
अम्भोधिवल्लभं भौमरत्नंचैव लतामणिः ।
रक्ताङ्गं रक्तदेहं च जलधिगर्भकोटकम् ॥

अस्य भेदाः ।

अरुणं शशरक्ताभं कोमलं स्निग्धमेव च ।
प्रवालं विप्रजातिः स्यात् सुखवेध्यं मनोरमम् ॥
जवाबन्धूकसिन्दूरदाड़िमीकुसुमप्रभम् ।
अस्निग्धं कठिनं चैव दुर्वेध्यं क्षत्रमुच्यते ॥
पलाशकुसुमाभासं तथा पाटलसन्निभम् ।
वैश्यजातिर्भवेत् स्निग्धं वर्णाढ्यं मन्दकान्तिमत् ॥
रक्तोत्पलदलाकारं कठिनं न चिरद्युति ।
विद्रुमं शूद्रजाति स्याद् नैव वेध्यं सुखेन तत् ॥

PRAVALAM (CORAL).

Its varieties.

The best of the corals is reddish-white in colour, like the blood of a hare. It is soft, with a surface appearing to be smeared with oil, beautiful, and is capable of being easily perforated. The second class of the corals is as red as red vermillion or the java, bandhuka, or pomegranate flower. Such a coral is stiff and its surface does not appear to be smeared with oil. It is difficult to be perforated. The third class in merit of the corals is yellowish-red like palasha or pātala flower. It has a beautiful colour, but very little glaze. Its surface does not appear to be smeared with oil. The fourth class of corals, which is the least meritorious, is blackish-red like the petals of a red lotus flower. It is hard and its lustre does not last for a long time. It is very difficult to be perforated.

शस्तप्रवालानां लक्षणानि ।

रक्तता स्निग्धता दार्ढ्यं वृत्ताकृतिश्चिरद्युतिः ।
स्थौल्यं च व्रणराहित्यं प्रवालानां गुणा मताः ॥

Characteristics of good corals.

These are :—(1) redness, (2) appearing to be smeared with oil, (3) capacity for being perforated, (4) globular shape, (5) lastingness of the lustre, (6) thickness, and (7) smoothness of surface.

अशस्तप्रवालानां लक्षणानि ।

पाण्डुरं धूसरं दुष्टं * सव्रणं कण्डरान्वितम् ।
निर्भारं शुल्ववर्णञ्च प्रवालं नेष्यतेऽष्टधा ॥

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* दुष्टमिति दोषयुक्तम् १६८ पृष्ठं द्रष्टव्यम् ।

Characteristics of bad corals.

Bad corals are pale-white, grey-coloured, small, rough-surfaced, full of cavities, light, and copper-coloured.

विद्रुमस्य कोमलत्वम् ।

नायसोल्लिख्यते रत्नं मौक्तिकं विद्रुमं विना ॥

Softness of corals.

Of all the gems, only corals and pearls can be scratched upon by iron.

प्रवालस्य गुणाः ।

क्षयपित्तास्रकासघ्नं दीपनं पाचनं लघु ।
विषभूतादिशमनं विद्रुमं नेत्ररोगनुत् ॥

Properties of corals.

Pravala is efficacious in phthisis, hemorrhage, cough, eye-disease, poison, and evil influences exerted by ghosts, etc. It is light and digestive.

अथ कर्केतम् ।

कर्केतनं च कर्केतं नखमणिश्च कथ्यते ।
कर्केतं श्रीप्रदं सम्यक् स्पर्शजगरनाशनम् ॥

Karketam (chrysoberyl or chrysolite).

Used internally as a drug, or externally as an article of jewellery, it brings to its user all sorts of

fortune and beauty. It is an antidote against infection from taking contaminated food or association with diseased persons.

कर्केतस्य भेदाः ।

वर्णेन तद्रुचिरसोममधुप्रकाशमाताम्रपीतदहनो-
ज्ज्वलितं विभाति ।
नीलं पुनः खलु सितं परुषं विभिन्नं भेदादिदोष-
हरणेन न तद्विभाति ॥

Varieties of karketana.

Karketanam is of the following colours :—(1) blood-red, (2) moon-white, (3) honey-coloured, (4) having a tinge of the colour of copper, (5) yellow, (6) fire-coloured, (7) blue, and (8) pure white.

Of these, the last two, viz. blue and pure white, are coarse and full of cracks. They cannot therefore look bright even after removal of their defects.

कर्केतनस्य लक्षणम् ।

स्निग्धा विशुद्धाः समरागिणश्च
आपीतवर्णा गुरवो विचित्राः ।
त्रासव्रणव्याधिविवर्जिताश्च
कर्केतनास्ते परमाः पवित्राः ॥

Characteristics of good karketana.

Karketanas of the following description are commendable :—(1) oily-surfaced, (2) not mixed with foreign matters, (3) of uniform colour (4) having a tinge of yellow, (5) heavy, (6) having a play of more than one colour, and (7) devoid of such defects as crack, etc. (see page 169).

अस्य गुणाः ।

पत्रेण काञ्चनमयेन तु वेष्टयित्वा
हस्ते गलेऽथ धृतमेतदतिप्रकाशम् ।
रोगप्रणाशनकरं कलिनाशनं च
आयुष्करं कुलकरं च सुखप्रदं च ॥
एवंविधं बहुगुणं मणिमावहन्ति
कर्केतनं शुभमलङ्कृतये नरा ये ।
ते पूजिता बहुधना बहुबान्धवाश्च
नित्योज्ज्वलाः प्रमुदिता अपि ते भवन्ति ॥

Properties of karketana.

A bright karketana, if put on with a golden foil, causes the cure of diseases, does away with the possibility of troubles and anxieties, and increases longevity, children, and happiness.

Those who put on such a good gem acquire respect from people, riches, many friends, beauty, and good health.

अथ पुष्परागः ।

पीताश्म गुरुरत्नं च वाचस्पतिप्रियस्तथा ।
पीतरत्नं प्रसूनाभो मञ्जुमणिश्च पीतकम् ।
पुष्परागो हरिद्राभं पिङ्गस्फटिकमेव च ॥
पुष्परागमणिर्द्विधा प्राप्तव्यो ज्ञायते बुधैः ।
पद्मरागाकरे कश्चित् कश्चित् तार्क्ष्योपलाकरे ॥
ईषत् पीतं च वज्राभं स्वच्छं कान्त्या मनोहरम् ।
पुष्परागमिति प्रोक्तं चन्द्रसेनमहीभुजा ।
पुत्रधनप्रदः पुण्यः पुष्परागमणिर्धृतः ॥

PUSHPARAGA (TOPAZ).

Pushpa-raga can be obtained in two different kinds of mines, viz. in mines of ruby and in those of emeralds. Pushparaga, according to king Chandra Sena, the chemist,* is yellowish, transparent, and bright like a diamond. It brings son and wealth to its wearer.

रत्नान्तरेभ्यः पुष्परागस्य विभेदः ।

आपीतपाण्डुरुचिरः पाषाणः पुष्परागसंज्ञस्तु ।
कौरण्टकनामा स्यात् स एव यदि लोहितापीतः ॥

* For a brief history of Indian Chemistry, see Chapter III, page 46 of the author's book entitled "Indian Civilization and its Antiquity."—(Price Rs. 2. India).

आलोहितस्तु पीतः स्वच्छः काषायकः स एवोक्तः।
आनीलशुक्लवर्णः स्निग्धः सोमालकः स्वगुणैः॥
अत्यन्तलोहितो यः स एव खलु पद्मरागसंज्ञः स्यात्।
अपि चेन्द्रनीलसंज्ञः स एव कथितः सुनीलः सन्॥

Distinction of pusparaga from the other gems.

The stone which is yellowish-pale and bright is called "pusparaga". It is called "kaurantaka", if it is yellowish-red in colour. It is called "kashaya", if it is reddish-yellow and transparent. It is "somalaka", if it is bluish white and smooth. The stone which is very red is a ruby, and that which is deep-blue is a sapphire.

पुष्परागाणां छायाः।

छाया चतुर्विधा तस्य सिता पीताऽऽसिताऽसिता।

Sub-colours of Topazes.

They are (1) white, (2) yellow, (3) pale-white, and (4) black.

शस्तपुष्परागस्य लक्षणम्।

पुष्परागं गुरु स्वच्छं स्निग्धं स्थूलं समं मृदु।
कर्णिकारप्रसूनाभं मसृणं शुभमष्टधा॥

Characteristics of good Topaz.

A good topaz is heavy, transparent, appearing to have its surface smeared with an oily substance,

thick, well-shaped, soft, having the colour of a karnikara flower, and smooth.

अशस्तपुष्परागस्य लक्षणम्।

(१)

कृष्णबिन्द्वङ्कितं रुक्षं धवलं मलिनं लघु।
विच्छायं शर्करागारं पुष्परागं सदोषकम्॥

(२)

निस्प्रभं कर्कशं रुक्षं पीतं श्यामं नतोन्नतम्।
कपिशं कपिलं पाण्डु पुष्परागं परित्यजेत्॥

Characteristics of a bad Topaz.

(1)

A defective topaz has got black spots on its surface, is rough, white, devoid of lustre, light, devoid of a sub-colour, and has sugar-like spots.

(2)

A bad topaz is devoid of lustre; it is coarse, rough, yellow, black, having an undulating surface, brown or reddish brown, tawny, and pale-white.

पुष्परागस्य गुणाः।

पुष्परागं विषच्छर्दिकफवाताग्निमान्द्यनुत्।
दाहकुष्ठास्रशमनं दीपनं पाचनं लघु॥

Properties of pushpa-raga.

Pusppa-raga is efficacious in poison, nausea, excess of phlegm and vayu, loss of digestive power, inflammation, leprosy, and hemorrhage. It is easy to digest.

अथ राजावर्त्तः ।*

(१)

राजावर्त्तोऽल्परक्तोरुनीलिकामिश्रितप्रभः ।
गुरुश्च मसृणः श्रेष्ठस्तदन्यो मध्यमः स्मृतः ॥

RAJAVARTA (QUARTZ AMETHYST—LAPIS LAZULI).

(1)

The best type of this stone (which is a kind of quartz) has a blue colour with an admixture of slight red. It is heavy and smooth. Rajavartas of different description are inferior to these.

(२)

निर्गौरमसितमसृणं नीलं गुरु निर्मलं वहुच्छायम् ।
शिखिकण्ठसमसौम्यं राजावर्त्तं वदन्ति जात्यमणिम् ॥

(2)

A genuine rajavarta is devoid of dirt, devoid of whiteness, smooth, blue, heavy, clear, having various sub colours, and beautiful like the neck of a pea-cock.

* एष एव स्फटिकभेदः । २३६ पृष्ठं द्रष्टव्यम् ।

राजावर्त्तस्य गुणाः ।

(१)

प्रमेहक्षयदुर्नामपाण्डुश्लेष्मानिलापहः ।
दीपनः पाचनो वृष्यो राजावर्त्तो रसायनः ॥

Properties of Rajavarta.

(1)

Rajavarta is efficacious in gonorrhoea, waste, piles, anemia, phlegm, and vayu. It increases the power of digestion; is nutritious and curer and preventer of diseases and senile decay.

(२)

राजावर्त्तो गुरुः स्निग्धो शिशिरः पित्तनाशनः ।
सौभाग्यं कुरुते नृणां भूषणेषु प्रयोजितः ॥

(2)

Rajavarta is heavy, smooth, cool, and pacifier of pittam. It brings fortune to its wearer.

राजावर्त्तस्य शोधनम् ।

प्रथमोविधिः ।

निम्बुद्रवैः सगोमूत्रैः सक्षारैः स्वेदिताः खलु ।
द्वित्रवारेण शुध्यन्ति राजावर्तादिप्रस्तराः ॥

Purification of Rajavarta.

First process.

Rajavarta and similar stones are purified, if they are boiled for two or three times with lemon juice mixed with cow's urine and ksharas.

द्वितीयोविधिः ।

शिरीषकुसुमाद्र्ढकरसेन भावितोऽथवा ।
द्रवेन तेन सुस्विन्नो राजावर्त्तो विशुध्यति ॥

Second process.

Rajavarta is purified, if it is subjected to bhavana with the juice of shirisha flower mixed with ginger juice, or if it is boiled with the same liquid.

राजावर्त्तस्य मारणम् ।

लुङ्गाम्बुगन्धकोपेतो राजावर्त्तो विचूर्णितः ।
पुटनात् सप्तवारेण मृतो भवति निश्चितम् ॥

Incineration of Rajavarta.

Rajavarta is incinerated, if it is powdered and subjected to heat by putam for seven times, after having been rubbed each time with the juice of matulunga and sulphur.

राजावर्त्तस्य सत्त्वपातनम् ।

राजावर्त्तस्य चूर्णं तु कुनटीघृतमिश्रितम् ।
विपचेदायसे पात्रे महिषीक्षीरसंयुतम् ॥
सौभाग्यपञ्चगव्येन पिण्डीबद्धं तु कारयेत् ।
ध्मापितं खदिराङ्गारै सत्त्वं मुञ्चति शोभनम् ॥

Extraction of essence of Rajavarta.

Powdered rajavarta, mixed with manas-shila, clarified butter, borax, cow's milk, cow's curd, cow's urine, and cow's stool, is to be boiled with a sufficient quantity of buffalo's milk in an iron pot and made into a lump. This is to be heated by means of a fire made of khadira wood, resulting in essence of rajavarta coming out of the lump.

अनेन क्रमयोगेन गैरिकं विमलं तथा ।
क्रमात् पीतं च रक्तं च सत्त्वं त्यजति शोभनम् ॥

In this way, essences of yellow and red colour respectively, can be obtained from gairika (red ochre) and vimala (red pyrites).

अथ भीष्मरत्नम् ।

हिमाद्रिप्रतिबद्धं हि शुद्धं भीष्ममणिं खलु ।
बिभर्त्ति श्रद्धया यस्तु स सर्वां भूतिमाप्नुयात् ॥

गुणयुक्तस्य तस्यैव धारणाद्धि यथाविधि ।
विषाणि खलु नश्यन्ति सर्वान्येव महीतले ॥
बाधन्ते तं न कुञ्जरसर्पादिहिंस्रजन्तवः ।
जलाग्निदस्युवैरिणां भीतिस्तस्य विनश्यति ॥

BHISMA-MANI (A KIND OF ANTI-POISONOUS QUARTZ).

The man who wears a pure bhisma-mani, obtained from the Himalayas, acquires all sorts of objects of desire. The wearer of this gem becomes free from the effects of all sorts of poison. such ferocious animals as lion, snake, etc. can do him no mischief. He has nothing to fear from water, fire, robbers, and enemies.

अशस्तभीस्मरत्नम् ।

सैवालवलाहकाभं परुषं पीतप्रभं प्रभाहीनम् ।
मलिनद्युतिं विवर्णं दूरात् परिवर्जयेत् प्राज्ञः ॥

Bhisma-mani, unfit for use.

Bhisma-manis of the following description are to be avoided :—(1) Those which have the colour of moss ; (2) those which have the colour of the balahaka bird (a kind of crane) ; (3) rough, (4) yellowish, (5) devoid of lustre, (6) black-lustred, and (7) discoloured.

नीलमणेर्गुणाः ।*

श्वासकासहरं वृष्यं त्रिदोषघ्नं सुदीपनम् ।
विषमज्वरदुर्नामपापघ्नं नीलमीरितम् ॥

Properties of sapphire.†

A sapphire, duly incinerated, is a curer of asthma and cough. It is nutritious, pacifier of the three doshas, increaser of power of digestion, and destroyer of visama-jwara (malaria, black fever, etc.) piles, and vicious tendencies of the mind.

अथोपरत्नानि ।

विविधान्युपरत्नानि श्रेयस्तेषां तु सप्तकम् ।
पालङ्कं रुधिरं पूत्ति तार्क्ष्यजं पीलु चोपलम् ॥
सुगन्धिकं च सप्तैतद् दामहीनानि तानि वै ।‡
यत्नात् सर्वानि युज्यन्ते रसे रसायने तथा ॥

Uparatnas (Amorphous stones).

There are innumerable minor or amorphous stones. The best of all these are the following :—(1) palanka (onyx), (2) rudhiram (carnelian) (3)

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* एतदेव २२० पृष्ठे महानीलमित्येतस्यानन्तरं संनिवेश्यम् परन्तु प्रमादात् न तत् साधितम् ।

† This should have been inserted in page 220, after "maha-nila" or great sapphire.

‡ दामेति प्रकृत्या खण्डितं सविग्रहं दानेति भाषा ।

puttika (peridote), (4) turkshajam (turquoise—biraja or peroja *), (5) pilu (jade) (6) upalam (opal, chalcedony, and agate), and sugandhikam (spinel).

All of these are amorphous or uncrystallized in shape. They are to be incinerated carefully, and applied in mercurial operations as well as in medicines.

अथ पालङ्कम् ।

श्वेतलेखासमन्वितं कृष्णं पाषाणकं हि यत् ।
स्निग्धं हि मसृणं चैव पालङ्कं तत् प्रकीर्त्त्यते ॥
असितमसिताभासं तथा च धूमवर्णकम् ।
पालङ्कं त्रिविधं तत्तु संयुतं श्वेतरेखया ॥
रेखाणां केवलाऽथवा बह्वी तत्र प्रदृश्यते ।
धारणात् प्रचुरां श्रियं दत्ते स प्रस्तरः खलु ॥

PALANKA (ONYX).

Palanka is a black stone with a white line drawn upon it. Its surface is smooth and appears to be smeared with oil. Palanka is of three different kinds, viz. black, pale-black, and ash-coloured. Each of them has a white and rope-like line drawn upon it. Sometimes there are more than one of such white lines.

* The Persian epithet "peroja" is evidently a contraction of the Sanskrit "biraja", meaning green as "biraja" (durva grass).

अथ रुधिरम् ।

इन्द्रगोपनिभं रक्तं शुकवक्त्रसमं रुचौ ।
मध्येन्दुपाण्डुरं शक्रनीलाभपटलं तथा ॥
गृहीतबहुमूर्त्तिकं विशुद्धवर्णसंयुतम् ।
प्रकटपीलुवन् मानाद् रुधिराख्यं हि रत्नकम् ॥
ऐश्वर्य्यकान्तिभूतिनां दाता तत् स्वल्परत्नकम् ।
पक्वमेतद् भवेद् वज्रसदृशसुन्दरच्छवि ॥

RUDHIRAM (CARNELIAN).

Rudhiram is as red as an insect, named indra-gopa (mukmuli), or the mouth of a shuka bird (a kind of parrot). The inner part of this gem is as white as the moon, and the sides have the colour of an indra-nilam. It has a pure colour, and it can be given several shapes. It has the weight of a fully grown pilu fruit. This stone, when fully developed, may take the colour of a diamond.

It brings wealth and beauty to its wearer.

अथ पूत्तिका ।

हरिद्वर्णा च पीताभा मरकतानुकारिणी ।
पूत्तिका पुत्रिका सा च कोमला च प्रभान्विता ॥
क्षौमेण वाससा घृष्टा दीप्तिं त्यजति पूत्तिका ।
दीप्तिर्मरकतस्य हि घृष्ट्या क्षौमेण वर्द्धते ॥

PUTTIKA (PERIDOTE).

Puttika is yellowish-green, and resembles emerald in colour. It is soft and bright. It can be distinguished from emerald by being rubbed with a silken cloth, which reduces its lustre, whereas an emerald becomes brighter, if rubbed in this way.

अथ तार्क्ष्यजम् ।

तार्क्ष्यजं हरितश्यामं भस्माभहरितं तथा ।
तदेवातिकषायं च मधुरं दीपनं परम् ॥
स्थावरं जंगमं चैव तथा संयोगजं विषम् ।
तत्सर्वं नाशयेत् तथा शूलं भूतादिपीड़नम् ॥

TURKHAJA (TURQUOISE—BIRAJA).*

Turkhaja is of two kinds, viz. greenish-black, and ash-coloured green. It is astringent, sweet, and digestive. It removes all sorts of poisons, organic, or inorganic, and is efficacious in colic and troubles due to evil spirits.

अथ पीलु ।

मरकतसमो वर्णात् तत्प्रभारहितो मणिः ।
पीलुनामा स विज्ञेयो चीनजापप्रियो मतः ॥

* Originally obtained from Turkey. The Persian name peroja is a contraction of Sanskrit, "biraja",

ज्ञानबुद्धिमतिस्थैर्य्यदायकोऽसौ मणिर्मतः ।
रक्तिकामानतो देयं तद्भस्म शूलजे गदे ।

PILU (JADE).

This resembles an emerald in colour but not in brightness. The Chinese and the Japanese are specially fond of this stone. It is a giver of wisdom, intelligence, and stability of mind. Incinerated pilu, taken in doses of one racti a day, cures colic.

अथोपलम् ।

उपलं त्रिविधं ज्ञेयं मर्म्मराश्म वरोपलम् ।
तथा रुधिरपालङ्कं सर्वं दामविवर्जितम् ॥
मर्मरं समवर्णं हि वरोपलं तथैव च ।
मर्मरे न प्रभा काऽपि वरोपलं बहुप्रभम् ॥
ख्यातं रुधिरपालङ्कं बहुवर्णं बहुस्तरम् ।
छायाहीनं तदेव तु विचित्रवर्णचित्रयुक् ॥
श्वेतकृष्णविमिश्रितं धूम्रं च हरितं सितम् ।
मर्मरं दृश्यतेऽथवा वर्णान्तरसमायुतम् ॥
पाषाणं सितमर्मरं कर्पूरमणिरुच्यते ।
सितं नीलसितं कृष्णं रक्तं चेन्द्रधनुर्निभम् ।
वर्णेन छायया चैव दृश्यते हि वरोपलम् ॥
दामहीनमणीनां च कृष्णं भ्रमरमुच्यते ॥

UPALAM (CHALCEDONY, OPAL, AND AGATE.)

It is a general name given to three different kinds of stones, viz. marmarashman (chalcedony), baropala (opal), and rudhira-palanka (agate.)—all of these are amorphous or uncrystallized.

Chalcedony as well as opal has one uniform colour, but the former has no sub-colour or radiance, whereas opal has various sub-colours. Agate has several colours and several layers. It has no sub-colours, but it has variety of colours and figures impressd upon it. Chalcedony or marble stone has only one of the following colours:—White-black, smoky, green, white, etc. White variety of chalcedony is called "karpura-mani" or camphor-stone. Opal has any of the following colours:—White, bluish-white, black, red, rain-bow-colour. Each opal may have one or more of these as sub-colour.

The black variety of all the amorphous stones is called "bhramara-mani" or black-bee stone.

अथ सुगन्धिकम् ।

बहुविधं सुगन्धिकं नीलं कृष्णं च लोहितम् ।
वर्णान्तरयुतं वापि सर्वं पीतप्रभान्वितम् ॥
स्वच्छं वज्रसमाकारं सुदृशं प्रस्तरं हि तत् ।
माणिक्यनीलरत्नानामाकरे जायते हि तत् ॥

SUGANDHIKAM (SPINEL).

Sugandhikam is of various colours, viz. blue, black, red, etc. Each of these stones has a yellowish sub-colour. It is transparent, beautiful, and of the shape of a diamond. It grows in mines of rubies and emeralds.

उपरत्नानां सामान्यगुणाः ।

उपरत्नं वरं यत् तु तत् किञ्चित् सूयते फलम् ।
ईषद्रत्नगुणं तत् तु बिभर्त्तीति विदां मतम् ॥*

General Properties of Amorphous Stones.

The amorphous stones, if devoid of defects, are regarded to have a part of the properties of the gems (see page 195).

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* १९५ पृष्ठे रत्नानां सामान्यगुणाः द्रष्टव्याः ।

पञ्चमोऽध्यायः ।

अथ क्षाराः ।

क्षरति यो मलं शीघ्रं तत्क्षार इति उच्यते ।
क्षारत्रयं समाख्यातं यावस्वर्जिकटंकनम् ॥
टंकनोषरकं चापि यवक्षारश्च स्वर्जिका ।
क्षारचतुष्टयमेतद् परिचितं सदा भुवि ॥
पलाशमोक्षकक्षारौ यवक्षारः सुवर्चिका ।
तिलनालोद्भवः क्षारश्चैतानि क्षारपञ्चकम् ॥
स्वर्जिटंकनमूषरं त्रितयं भौममुच्यते ।
लभ्यन्ते तानि मृन्मध्यात् क्षारपाकक्रियाकरैः ॥
अन्ये तु सकलाः क्षारा भस्मजसंज्ञिताः खलु ।
नवसारोऽपि विज्ञेयः क्षारोत्तमो मनीषिभिः ॥
द्रव्याद्धि पच्यमानात् तज्जायते इति पाकिमः ।
सूतगुणांशसंपर्कात् स एवोपरसो मतः ।
पलाशाश्वत्थमोक्षजा धवस्नूहीमयूरजाः ।
चनवृक्षार्कपत्रकचिंचाफलकोषोद्भवाः ॥

तिलनालसमुत्पन्नो यवशूकोद्भवोऽपि च ।
वासापत्रोद्भवश्च यो दुरालभाभवश्च वै ॥
व्याघ्रीमूलकचित्रकपुनर्णवार्द्रजाश्च ये ।
एते सर्वे प्रयोजिता भेषजेषु यथाविधि ॥
अन्येभ्यो बहुवृक्षेभ्यो लतागुल्मतृणादितः ।
क्षारो संजायते सम्यग् वक्ष्यमानविधानतः ॥
यावस्वर्ज्यूषराश्चैव पाकिमं टंकनं तथा ।
पञ्चैतत् क्षारवर्गेषु विख्यातं क्षितिमण्डले ॥

CHAPTER V.

Kshāras (Alkalis).

The word "kshāra" is derived from the root "kshar", meaning "to remove". The word is so named, simply because it removes dirt.

The following are the three ksharas :—(1) java-kshara (a potassium carbonate prepared from the ashes of barley-ears), (2) swarji (refined natron), and (3) tankana (borax).

The following are the four ksharas :—(1) swarji (refined natron), (2) ushara (sora—saltapetre—a sodium nitrate), (3) java-kshara, and (4) tankana.

The following are the five ksharas :—(1) kshara prepared from palasha wood, (2) that from mokshaka (ghanta pātali) wood, (3) java-kshara, (4) swarji kshara, and (5) the kshara obtained from the tila (sesamum) plant.

Of all the ksharas, only swarji, tankana, and ushara are obtained from the earth. The rest of the ksharas are extracted from ashes of wood, leaves, etc. of trees, plants, creepers, shrubs, and grass.

Nava-sara (sal-ammoniac) is also a kshara but it is generally classed with the uparasas, simply because it possesses, to a certain extent, some of the properties of mercury (See page 215, vol, II). It is also called "pakima" (from root "pach", meaning to putrefy), simply because it is obtained from materials in a state of putrefaction or decomposition.

Ksharas obtained from the following are also well-known and widely used :—trees or plants of the name of palasha, aswattha, ghanta-patali, dhava, snuhi, apamarga, chanaka-plant, arka, covers of tamarind beans, sesamum plant, ears of barley, basaka, duralabha, kantikari, mulaka (raddish), chitraka, punarnava, and ardraka (ginger).

There are many other trees, plants, shrubs, creepers, and grass from which ksharas may be prepared by the method to be described below.

Of all the ksharas, the most widely known are the following :—(1) java-kshara, (2) swarji (refined natron), (3) usara (nitre *), (4) nava-sara, and (5) tankana (borax).

* The colloquial Indian name for nitre is sora or soraka, which are the corrupted forms of the sanskrit usara and usaraka, respectively, all of these words being synonymous Now, usara or usaraka, is a word which has been in use in its present sense even from the pre-historic times. This word is to be found in every sanskrit dictionary, modern or ancient, and even in sushruta.

सामान्येन क्षाराणां गुणाः ।

(१)

तीक्ष्णा उष्णाश्च दीपका लघवः क्लेदकास्तथा ।
दाहकाश्छेदनाश्चैव क्षाराश्च ज्ञायते बुधैः ॥
क्रिमिघ्ना व्रणदारणाः शोधनाः रोपनास्तथा ।
क्षारा मुखकराः सर्वे जानाति रसकौतुकी ॥

In this connection, it would be amusing to note how some of the Indian Allopaths, and their sympathisers, not conversant with sanskrit, which was the language of their fore-fathers and not caring to study the Indian system of medicine, sometimes rush into opinions which are simply ridiculous. Let us quote here a few lines from Dr. U. C. Dutt's "Materia Medica of the Hindus" (pp 89—90) :—

"Nitre was unknown to the ancient Hindus. There is no recognized name for it in sanskrit. * * * Some ancient sanskrit formulas for the preparation of mineral acids containing nitre mention this salt under the name of "soraka". This word, however, is not met with in any sanskrit dictionary and is evidently sanskritized from the vernacular "*sora*", *a term of foreign origin*. The manufacture of nitre was therefore most probably introduced into India after the adoption of gun-powder as an implement of warfare."

These are the remarks made by an Indian Allopath who wrote a book on the materia medica of the Hindus, without acquiring an adequate knowledge of the subject. This indicales a state of things which occurs probably in India alone.

The domga that nitre was unknown to the ancient Hindus is not based on facts. It will be evident from a passage (quoted by Dr. Sir P. C. Roy in his History of Hindu Chemistry, (Vol. I, – pp. 184-185, footnote) in a work entitled. "The Travels of John Albert de Mandelso from Persia into the East Indies, London 1669," that salt-petre used to be manufactured in the middle ages, at the latest, in large scales in India whence it was brought into Europe.

We propose to prove elsewhere that the use of gun-powder was quite known to the Hindus even at the time of the composition of the oldest portion of the Vedas.

गुल्मार्शोग्रहणीदोषशर्कराश्मरीनाशनाः ।
क्षारास्तु पाचनाः सर्वे रक्तपित्तकराः स्मृताः ॥

(२)

शस्त्रानुशस्त्रेभ्य क्षारः प्रधानतमश्छेद्यभेद्यलेख्य करणात् त्रिदोषघ्नत्वाद् विशेषक्रियावचारणाच्च । नानौषधिसमवायत्वात् त्रिदोषघ्नः । स खल्वाग्नेयौषधिगणभूयिष्ठत्वात् कटुक उष्णस्तीक्ष्णः पाचनो विलयनः शोधनो रोपणः शोषणः स्तम्भनो लेखनः क्रिम्यामकफकुष्ठविषमेदसामुपहन्ता पुंस्त्वस्य चातिसेवितः ।

General Properties of the ksharas.

(1)

The ksharas are acrid, warm, increasers of appetite, light, moistening, causing inflammation, reducers of phlegm, destroyers of worms, openers of boils, and cleansers and healers of sores.

The man who is conversant with the mercurial operations knows that ksharas give rise to hunger in mercury. The ksharas are efficacious in gulma, piles, chronic diarrhoea, diabetes, and stone disease. They are digestive and increaser of hemorrhage.

(2)

The ksharas are better than surgical instruments in as much as the former, like the latter, can serve

the purpose of incision, tapping, and scratching; and unlike the latter, can remove the three doshas, and have several other utilities as well. The ksharas may be remover of the three doshas owing to their being combined with the necessary drugs. They, on account of their being prepared from several herbs with fiery qualities, are pungent, warm, strong, digestive, remover of tissues, etc., purifier of sores, causing granulation in sores, drier up, causing steadiness, reducer of fat; and destroyer of worms, mucus, phlegm, leprosy, poison, and fat. They also destroy manly vigour, if taken in excess.

भस्मजक्षारनिर्माणस्य सामान्यविधिः ।

क्षारवृक्षादिजं काष्ठमथवा पत्रराशिकम् ।
शुष्कं सर्वं समाहृत्य वह्नौ प्रज्वालयेत् सुधीः ॥
नीत्वा तद्भस्म मृत्पात्रे प्रस्थैकप्रमितं खलु ।
तत्र क्षिप्त्वा जलं शुद्धं द्रोणमानं विलोड़येत् ॥
ततस्तद् धारयेद् रात्रौ प्रातरच्छं जलं नयेत् ।
तज्जलं स्रावयेद् यत्नात् सप्तशः पृथुवाससा ॥
तन्नीरं क्वाथयेद् वह्नौ यावत् सर्वं विशुष्यति ।
ततः पात्रात् समुल्लिख्य क्षारो ग्राह्यः सितप्रभः ॥
चूर्णाभः प्रतिसार्यः स्यात् पेयः स्यात् क्वाथवत्स्थितः ।
इति क्षारद्वयं धीमान् युक्तकार्येषु योजयेत् ॥

*General Process of manufacturing kshara * from ashes.*

The wood, leaves, etc. of an alkaline tree, plant, etc. are to be burnt to ashes. One prastha (64 tolas) of these ashes is to be dissolved with 16 times its weight of water which is to be allowed to settle for about 12 hours. The clearest part of the solution is next to be filtered for seven times through a piece of thick cloth. The water, thus filtered, is next to be heated till the whole thing gets dried up. The white-coloured solid product is then to be taken out and kept carefully. The solution, just before it is solidified, is a liquid alkali, used for drinking (in special diseases according to directions found in Sushruta). The solid product is an alkali to be used for external application (according to the instructions given in Sushruta) and as an ingredient of medicines.

यवक्षारः ।

अस्य नामानि ।

यवक्षाराभिधः स हि क्षारोत्तमश्च कथ्यते
यवाग्रजो यवापत्यं यवजो यवलासकः ।
पाक्यश्च यवशूकज यावश्च यवनालजः ॥

* The word kshara has undergone a gradual process of transformation as follows :—khara—khari—kali—kili—alkili—alkali.

अस्य निर्माणविधिः ।

यवशूकोद्भवं भस्म स्रावयित्वा यथाविधिः ।
पूर्वोक्तेन विधानेन क्षारो निर्मीयते जनैः ॥

JAVA-KSHARA.

Its preparation.

Ashes of the ears of barley are to be dissolved with water, which is to be filtered and condensed by heating in the afore-said way. The product is java-kshara.

अस्य गुणाः ।

यवक्षारः कटुः स्निग्धो लघूष्णासूक्ष्मवह्निकृत् ।
सारको मूत्रकारको वातश्लेष्मप्रशान्तिकृत् ॥
आनाहग्रहणीपाण्डुगुल्मार्शः श्वासशूलक-
प्लीहहृदामरोगानां तथा शुक्रस्य नाशनः ॥
ज्ञेयो वह्निसमः क्षारो नियतं यवशूकजः ॥

Its properties.

Java-kshara is pungent, soft, light, capable of easily spreading through all parts of the system, digestive, laxative, discharger of urine, and pacifier of vayu and kapha. It is efficacious in the following diseases :—intestinal obstruction, chronic diarrhoea, anemia, tumour in the belly, piles, asthma, colic, enlargement of the spleen, heart diseases, and mucus.

It does away with semen and has the properties of fire.

पाकिमक्षारस्य गुणाः ।

मेदोघ्नः पाकिमः क्षारो मूत्रवस्तिविशोधनः ।

Properties of pakima (nava-sara).

It reduces fat and purifies the kidneys.

भौमक्षाराः ।

(१) ऊषरक्षारः ।*

अस्य निर्माणविधिः ।

गङ्गातीरमृदं वाऽपि लवणाक्तं मृदन्तरम् ।
विलोड्य सलिले शुद्धे गालयेत् पृथुवाससा ॥
धारयेत् सलिलं तच्च रजन्यां मृद्घटे सुधीः ।
तन्नीरं क्वाथयेत् वह्नौ यावत् सर्वं विशुष्यति ॥
ततः पात्रात् समुल्लिख्य क्षारो ग्राह्य सितप्रभः ।
ऊषरं कथ्यते तत्तु शिलाजतूषराभिधम् ॥

KSHARAS OBTAINED FROM THE EARTH.

(1) USARA OR SORA (SALT-PETRE).

Earth, taken out from the banks of the Ganges, or any other salty earth is to be dissolved with pure water and then filtered through a piece of

* द्वितीयखण्डे १०४ पृष्ठे ऊषराख्यं शिलाजतु द्रष्टव्यम् ।

thick cloth. This water is next to be kept in an earthen pot for about 12 hours to settle. The clearest part of the solution is then to be taken out and heated till it gets condensed. The product, which is of white colour, is then to be taken out. It is called ushara or sora. It is the same thing as ushara shilajatu (vide page 104, Vol. II).

अस्य नामानि ।

ऊषश्चोषरकश्चैव सौवर्चलस्तथोषरः ।
रुचकं रुच्यकं पाक्यं तथाक्तं हृद्यगन्धकम् ॥
लवनस्वादप्राधान्याल् लवणं च विकथ्यते ।
ऊषसूतः स एव हि क्षारलवनकं तथा ।
ऊषराज् जायते मृदस्तस्मादूषरको मतः ॥

Its names.

Ushara or sora is also called "sauvarchala" salt, on account of its being of saline taste. It is both a kshara as well as a salt. It is called "ushara", simply because it grows out of ushara (salty) soil.

अस्य गुणाः ।

उष्णोऽनिलघ्नः प्रक्लेद ऊषक्षारो बलापहः ।
रोचको भेदकः स्निग्धः सूक्ष्मश्च पित्तलो लघुः ॥

हर्षदो वह्निवर्द्धकश्चोद्गारशोधकस्तथा ।
विबन्धानाहशूलेषु गुल्मामक्रिमिवायुषु ॥
ऊर्द्ध्वानिले विशेषेण शस्तः स्यादूषरो मतः ॥

Its properties.

Ushara is a pacifier of vayu. It is moistening, destroyer of strength, increaser of appetite, laxative, soft, easily capable of spreading throughout the whole system, a little increaser of pittam, light, increaser of laugh, disgestive, and purifier of elching winds.

It is also efficacious in the following :—constipation, intestinal obstruction, colic, gulma, mucus, worms, and, especially, wind moving upwards.

मिश्रक्षारः ।

पूर्वोक्तेन मृदा सार्द्धं क्षारशिल्पी विमिश्रयेत् ।
तृणानां प्रचुरं भस्म क्वचिद् वा क्षारवृद्धये ॥
अनेन निर्मितः क्षारो मिश्राभिधो विकथ्यते ।
स्वर्जिना सहितं चेत्थं तृणभस्म विमिश्र्यते ॥

Mixed kshara.

Manufacturers of kshara sometimes mix with the mud, referred to above, a sufficient quantity of ashes of grass in order to increase the quantity of the kshara to be produced. The distilled solution of mud and ashes is to be heated, and condensed into a mixed kshara, in the manner described above.

(२) स्वर्जिक्षारः ।

अस्य नामानि ।

स्वर्जिक्षारः सुवर्चिका कपोतः सुखवर्चकः ।
स्वर्जिश्च स्वर्जिका चैव सुवर्चिश्च सुवर्चकः ॥

अस्य निर्माणविधिः ।

केषुचिद् गिरिपृष्ठेषु भूतले वा तदन्तिके ।
दृश्यते क्षारमृत्पूर्णं भूस्तरं भूरिमानतः ॥
स्वर्जिमृत् * कथ्यते तच्च क्षारेतरपदार्थयुक् ।
संगृह्य मृत्तिकां तां च मृत्पात्रे स्थापयेत् ततः ॥
चतुर्गुणजलेनैव मृत्तिकां तां विलोड्येत् ।
तन्नीरं स्रावयेद् यत्नाद् बहुशः पृथुवाससा ॥
पूर्वनोक्तप्रकारेण क्काथयेत् तज्जलं ततः ।
इत्थं संजायते क्षारः स्वर्जिकाह्वो मनोहरः ॥

(2) SWARJI KSHARA (REFINED NATRON).

In certain hills or in places adjacent to hills, layers of alkaline soil are to be found in abundance. This soil is called swarji-mrit (natron). It contains alkaline mud with foreign matters. Some quantity of this earth is to be dissolved with four times its weight of water. The solution is next to be

* साजिमाटीति भाषा ।

distilled for several times through a piece of thick cloth. The solution, thus distilled, is next to be heated and condensed into solid alkaline substance, called swarji-kashara.

अस्य गुणाः ।

स्वर्जिका वह्निसंतुल्या यवक्षारसमा हि सा ।
कटूष्णातीक्ष्णवीर्या च कफानिलविनाशनी ॥
गुल्माध्मानोदरव्रणक्रिमिषु सा प्रशस्यते ।
शुक्रश्वासविबन्धार्शोयकृत्प्लीहनिसूदनी ॥

Its properties.

Swarji, like java-kshara, has the properties of fire. It is pungent, warm, and acrid. It pacifies kapha, and vayu, and is efficacious in gulma, flatulence of the stomatch, diseases ef the belly, boils, worms, asthma, intestinal obstruction, enlargement of the spleen and the liver. It impairs semen.

कृत्रिमस्वर्जिक्षारः ।

क्षुद्रदुरालभाक्षारो दुरालभाभवोऽपि वा ।
स्वर्ज्यभावे प्रदातव्यो भेषजेषु कवीश्वरैः ॥

Artificial swarji-kshara.

In the absense of swarji-kshara, as manufactured in the way stated above, physicians sometimes use,

as its substitute, a kshara prepared from the ashes of duralabha or small duralabha.*

(३) टंकनम् ।

मृत्तिका टंकलाह्वया टंकनमिश्रिता या हि ।
प्राप्यते सा कदाचिद्वै शुष्कजलाशयोदरे ॥
समाहृत्य मृदं तत् तु जलेन सह मेलयेत् ।
सजलं टंकनं ततः क्वाथयेत् तीव्रवह्निना ॥
यावद् विशुष्यति सर्वं ततः क्षारं समाहरेत् ।
सदाम † टंकनाह्वयं सितप्रभं मनोहरम् ॥

(3) TANKANA (BORAX).

A kind of mud containing borax is found in the beds of dried lakes (in upper India and Tibet). This mud is called 'tankal'. It is to be dissolved with water, filtered in the usual way, and dried up by heat, leaving crystals of borax deposited at the bottom of the pot.

टंकनस्य नामानि ।

टंकं च टंकनं चैव मालतीतीरसम्भवम् ।
रङ्गदं रसशोधनं पाचनकं रसाधिकम् ॥

* The small variety grows in abundance in barren tracts of land, and especially in the Punjab where it is called "lana" (contraction of "lavana", meaning saltish).

† दाम्ना सह वर्त्तमानं सदाम । दामन् दाना इति भाषा ।

लोहद्रावी रसघ्नं च सौभाग्यं वर्त्तुलं तथा ।
कनकक्षारनाम च मीलनं धातुवल्लभम् ॥
लोहश्लेषणकं चैव टंकनक्षार एव च ।
द्रावणकं रङ्गक्षारः सुभगं स्वर्णपाचकम् ।
लोहशुद्धिकरं चैव टंगनं च तदुच्यते ॥

टंकनस्य भेदः ।

टंकनं द्विविधं ज्ञेयं पिण्डाख्यं च सदामकम् ।
पिण्डाख्यं मलिनश्वेतं सदाम हि सितप्रभम् ॥

Varieties of tankana.

Tankana is of two kinds, viz. pinda (lump) tankana, and crystal tankana. The former is not pure white, whereas the latter is pure white.

टंकनस्य गुणाः ।

कटूष्णरुक्षवह्निकृत् कफघ्नो वायुपित्तकृत् ।
कासश्वासरजोरोधस्थावरविषजित् तथा ।
पिण्डाख्यं टंकनं ज्ञेयं हीनं तत् सितटंकनात् ॥
कटूष्णस्निग्धतीक्ष्णं हि सितं भेदि बलप्रदम् ।
पाचकं श्लेष्मवातघ्नं क्षयामविषदोषहृत् ॥
पिण्डाख्यात् तु सितं श्रेष्ठं शुद्धतरं हि तन्मतम् ॥

Properties of tankana.

Lump tankana is pungent, warm, rough, increaser of digestive power, destroyer of kapha, and increaser of vayu and pittam. It is efficacious in cough, asthma, dismenorrhoea, and inorganic poison. It is inferior to crystal tankana.

White or crystal tankana is pungent, warm, soft, acrid, white, laxative, strengthening, digestive, destroyer of kapha and vayu, and efficacious in waste, mucus, and poison.

The white borax is purer than the lump borax.

टंकनस्य शोधनम् ।

टंकनं वह्नियोगेन स्फुटितं हि विशुध्यति ॥

Purification of tankana.

Tankana is purified, if it is made to burst into white ashes by the application of heat.

क्षाराणां द्वैविध्यम् ।

क्षारास्तु द्विविधा ज्ञेया कठिनास्तरलास्तथा ।
कठिनाः प्रतिसार्याश्च प्रयोज्या भेषजादिषु ॥
तरलाः पानयोज्या हि गदेषु बहुषु मताः ।
काञ्जीसुरादधिक्षीरतक्रोष्णवारिभिः सह ।
अथवा वारिणा सार्धं कुलत्थसंभवेन हि ॥
भस्मवारिपरिस्रुतक्षारजलस्य पाकतः ॥

जायते तरलः क्षारो रक्ताच्छतीक्ष्णपिच्छिलः ।
तरलस्य पुनर्पाकात् क्षारोऽयं कठिनायते ॥

Two kinds of ksharas—liquid and solid.

Ksharas are of two kinds, viz. solid and liquid. Solid ksharas are meant for external application and for use as ingredients of medicines, whereas liquid ones are for drinking in several diseases with kanji, wine, curd, milk, butter milk, or decoction of kulattha.

Liquid kshara is obtained by heating distilled solution of ashes mixed with water up to the time when the solution grows red, clear, acrid, and sticky. Further heating of this liquid kshara results in the solidification of the solution into hard kshara.

प्रतिसार्यक्षारस्य विषयाः ।

कुष्ठ-किठिमदद्रु किलासमण्डल-भगन्दरार्बुददुष्ट-व्रणनाड़ी-चर्मकीलतिलकालकन्यच्छ-व्यङ्गमशकबाह्य-विद्रधिकृमिविषार्शःसूपदिश्यते सप्तसु च मुखरोगेषूपजिह्वाधिजिह्वोपकुशदन्तवैदर्भेषु रोहिणीषु चैवानुशस्त्रप्रणिधानमुक्तम् ।*

Diseases in which solid kshara is to be applied.

Hard kshara may be applied in the following diseases :—leprosy in general, kitima (keloid), dadru

* विस्तरार्थं सुश्रुतस्य सूत्रस्थाने एकादशोऽध्यायस्तथा उत्तरतन्त्रे द्विचत्वारिंशोऽध्यायो द्रष्टव्यः ।

(ring-worm), kilasa (leucoderma), mandala (lepra), bhagandara (fistula in ano), arbuda (a kind of tumour), dusta-brana (unhealthy ulcers), nali-brana (sinus), charma-kila (condyloma), tila-kalaka (mobs), nyachha (chloasma), byanga (black spots on the face), mashaka (warts), bahya-bidradhi (external tumours), krimi (worms), bisha (poison), piles, upajihva (ranula), adhijihva (tumour on the tongue), upakusa (inflammation of the gum), danta-vaidarbha (inflammation of the gum from injury), and three sorts of rohini (diptheria).*

तरलक्षारस्य विषयाः ।

पानीयस्तु गरगुल्मोदराग्निशूलाजीर्णारोचकानाहशर्कराश्मर्यभ्यन्तर-विद्रधि-कृमि-विषार्शः-सूपयुज्यते । अहितं तु रक्तपित्तज्वरितपित्तप्रकृतिबालवृद्धदुर्बलभ्रममदमूर्च्छातिमिरपरीतेभ्यऽन्येभ्यश्चैवंविधेभ्यः ।

Use of liquid Kshara.

The liquid kshara is used in toxin, gulma, udara, indigestion, colic, loss of appetite, intestinal obstruction, diabetes, stone disease, internal tumour, worms, and piles.

It is injurious in hemorrhage, fever, biliousness, diseases of children, old men, and weak men,

* Allopathic classification of diseases is so vague and general that it is impossible to find a corresponding allopathic name for every name of diseases mentioned in the Hindu science of medicine.

giddiness, after-effects of drinking wine, loss of eye-sight, etc.

सर्वक्षारस्य निर्माणविधिः ।

सर्वक्षारं चिकीर्षुः शरदि गिरिसानुजं शुचिः प्रशस्तेऽहनि प्रशस्तदेशजातमनुपहतं मध्यमवयसं महान्तमसितमोक्षकं पाटयिष्यति । खण्डशः प्रकल्प्यावपाट्य निर्वाते देशे निचितं कृत्वा सुधाशर्कराश्च प्रक्षिप्य तिलनालैरादीपयेदथोपशान्तेऽग्नौ तद्भस्म पृथग् गृह्णीयाद् भस्मशर्कराश्च । अथानेनैव विधानेन कूटजपलाशाश्वकर्णपारिभद्रकविभीतकारग्वधतिल्वकार्कस्नूह्यपामार्गपाटलानक्तमाल वृषकदली चित्रकपूतीकेन्द्रवृक्षास्फोताश्वमारकसप्तच्छदाग्निमन्थगुञ्जाश्चतस्रश्च कोषातकीः समूलफलपत्रशाखा दहेत् । ततः क्षारद्रोणमुदकद्रोणैः षड्भिरालोड्य मूत्रैर्वा यथोक्तैरेकविंशतिवारान् विस्राव्य महति कटाहे शनैर्दर्व्या विघट्टयन् विपचेत् । स यदा भवत्यच्छो रक्तस्तीक्ष्णः पिच्छिलश्च तमादाय महति वस्त्रे परिस्राव्येतरं विसृज्य च पुनरग्नावधिश्रयेत् । तत एव च क्षारोदकात् कुडवमध्यर्द्धं वापनयेत् । ततः कटशर्कराभस्मशर्कराक्षीरपाकशङ्खनाभीरग्निवर्णाः कृत्वायसे पात्रे तस्मिन्नेव क्षारोदके निषिच्य

पिष्ट्वा तेनैव द्विद्रोणेऽष्टपलसंमितं शङ्खनाभ्यादीनां प्रमाणं प्रतिवाप्य सततमप्रमत्तश्चैनमवघट्टयन् विपचेत् । स यथा नातिसान्द्रो नातिद्रवश्च भवति तथा प्रयतेत । अथैनमागतपाकमवतार्यानुस्तप्तमायसे कुम्भे संवृतमुखे निदध्यादेष मध्यमः । एष एवाप्रतीवापः पक्वः संव्यूहिमो मृदुः । प्रतीवापे यथालाभं दन्ती द्रवन्ती चित्रकलाङ्गलकीपूतिकप्रवालतालपत्रीविड्सुवर्चिकाकनकक्षीरीहिङ्गुवचाविषाः समाः श्लक्ष्णचूर्णाः शुक्तिप्रमाणाः प्रतिवापः । स एव सप्रतीवापः पक्वः पाक्यस्तीक्ष्णस्तेषां यथाव्याधिबलमुपयोगः । क्षीणबले तु क्षारोदकमावपेद् बलकरणार्थम् ।

एष सर्वक्षारः सुश्रुतोक्तविधानेन प्रतिसारणार्थं नियोक्तव्यो न तु विषयान्तरे ।

Process of preparing swarva-kshara.

A middle-aged black mokshaka tree growing in a valley of a mountain is to be cut into pieces, sometime in the two months following the rains, and kept in a heap in a place protected from drafts of air. Some lime stone (or balls of lime-mud dried up, generally known by the name of "ghuting") is also to be kept inside the heap of wood, which is

to be burnt by fire made of sesamus plant. The ashes of the wood are then to be separated from the burnt lime-stone, as well as from the burnt soil upon which the act of burning takes place.

In the same way, ashes will have to be prepared from the following trees (or plants, as the case may be) :—kutaja, palasha, asva-karna (a kind of shala), paribhadra, bibhitaki, aragbadha, lodhra, arka, snuhi, apamarga, patali, bisha-karanja, basaka, kadali, chitraka, putika (rama-karpura), kutaja, asphota (bhadra-balli),* karabira, saptaparni, agnimantha, gunja, and four kinds of ghosha (including deva-dali).

Two thirds of a drona of the ghanta-patali kshara and one third of a drona of the kshara prepared from kutaja and the other trees, referred to above, are to be dissolved with water or cow's urine, six dronas in weight, and filtered for 21 times. The solution is next to be subjected to heat till it becomes clear, red, acrid, and sticky, when it will have to be filtered again, rejecting the dregs. The solution, thus filtered, may be used as a liquid kshara, if necessary.

Take one kuraba or $1\frac{1}{2}$ kuraba of this solution, and rub it with 8 palas of all these combined :—burnt lime, burnt sand obtained from the spot where the wood was burnt, oyster shells burnt, and nabhishankha (a kind of conch shell)—each equal in quantity, and previously made red-hot by heating in an iron

* Bengali, "hapharmali". Asphota may also mean red arka.

cauldron. The paste, thus prepared, is to be boiled with two dronas of the liquid kshara, referred to above, turning it, all the while, by an iron ladle in such a way as to make the product neither solid nor liquid. The kshara, thus prepared, is of moderate strength. It would be mild, if prepared in the above way without the mixture of the paste, referred to above. It can be rendered the strongest, if prepared with the addition of four tolas in weight of the fine powder of each of the following, mixed in course of the heating :—danti, dravanti, chitraka, langalaki, leaves of nata-karanja, tala-muli, bira-salt, swarji-kshara, swarna-kshiri, hingu, bacha, and ati-visha.

These ksharas are to be kept in jars with their mouths covered.*

क्षारद्वयम् ।

स्वर्जिका यावशूकश्च क्षारद्वयमुदाहृतम् ।

क्षाराष्टकम् ।

पलाशवज्रिशिखरिचिञ्चार्कतिलनालजाः ।
यवजः स्वर्जिका चेति क्षाराष्टकमुदाहृतम् ॥
क्षारा एतेऽग्निना तुल्या गुल्मशूलहरा भृशम् ॥

The two ksharas.

Swarjika and java-kshara combined are called the two ksharas.

* For details see, Chapter XI, Sutra-sthanam, and XXXXII, uttaratantra, Sushruta.

The eight ksharas.

The following eight are called the eight ksharas :—ksharas prepared from (1) palasha, (2) snuhi, (3) apamarga, (4) chincha, (5) arka, (6) tila plant, (7) ears of barley and (8) swarji kshara.

These are like fire and are curer of gulma and colic.

षष्ठोऽध्यायः ।

अथ लवणानि ।

लवणं पटु लोतं च लोनं शिवं च कथ्यते ।
लवणानि षडूच्यन्ते सामुद्रं सैन्धवं विड़म् ।
सौवर्चलं रोमकं च चुलिकालवणं तथा ॥

CHAPTER VI.

Lavanas (salts).

There are six different kinds of salts, viz. (1) samudra (marine), (2) saindhava (rock-salt found in the Punjab and sind), (3) bira (an artificial salt), (4) sauvarchala (salt-petre), (5) romaka (salt obtained from the lake, sambar, in Rajputana), and (6) chulika (nava-sara or sal ammoniac).

सामान्येन लवणानां गुणाः ।

लवणः शोधनो रुच्यः पाचनः कफपित्तदः ।
पुंस्त्ववातहरः कायशैथिल्यमृदुताकरः ॥
बलघ्न आस्यजलदः कपोलगलदाहकृत् ॥

Properties of salts in general.

Salt is purifier, increaser of relish in food, digestive, increaser of kapha and pitta, destroyer of manliness and of vayu. It slackens and softens the body, impairs strength, induces shedding of water through the mouth, and causes inflammation in the cheeck and the neck.

अतियुक्तस्य लवणस्य गुणाः ।

सोऽतियुक्तोऽक्षिपाकास्रपित्तकोठक्षतादिकृत् ।
बलीपलितखालित्यकुष्ठविसर्पतृट्प्रदः ॥

Properties of salt taken in excess.

Salt, taken in excess, causes opthalmia, racta-pitta, intestinal ulcer, falling off of teeth, greyness of hair, baldness, leprosy, erysipelaus, and thirst.

(१) सामुद्रलवणम् ।

सामुद्रमक्षिवं चैव वशिरं च समुद्रजम् ।
सामुद्रं दीपनं तीक्ष्णं लघु रुच्यं च सारकम् ।
क्षारगुणयुतं कफपित्तकृद् वायुनाशनम् ॥

(1) SAMUDRA LAVANA (SEA SALT).

It is digestive, acrid, light, increaser of appetite, laxative, having some of the properties of alkalis, increaser of kapha and pitta, and pacifier of vayu.

(२) सैन्धवम् ।

सैन्धवं शीतशिवं * च मणिमन्थं च सिन्धुजम् ।
सिन्धुदेशे तथा पञ्चनदाख्ये प्राप्यते खनौ ।
तदेव दीपनं शीतं लवणमधुरं लघु ॥
मृद्वग्निवर्धनं रुच्यं चक्षुष्यं शुक्रदं तथा ।
त्रिदोषघ्नं तथा सूक्ष्मं विबन्धव्रणनाशनम् ॥

(2) SAINDHAVA (ROCK-SALT).

Saindhava is a rock-salt found in the sind and the Punjab. It is digestive, producing a cooling effect in the system, saltish-sweet in taste, light, soft, increaser of power of digestion and liking for food, beneficial to eye-sight, increaser of semen, pacifier of the three doshas, capable of entering everywhere into the system, and destroyer of constipation and boils.

(३) विडम् ।

विडं च विड्गन्धं च काललवणकं तथा ।
खण्डं द्राविड्कं चैव विड्लवणमासुरम् ॥
खण्डलवणकं धूर्त्तं कृतकं क्षारमेव च ।
कृत्रिमकं सुपाक्यं च वैद्यकलवणं तथा ॥

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* शीतशिवमिति शीतं शीतवीर्यं शिवं लवणमिति । सर्वेषां लवणानां मध्ये केवलं सैन्धवं शीतवीर्य्यम् ।

अस्य गुणाः ।

विड़ं लवणमुष्णं च तीक्ष्णं क्षारयुतं लघु ।
दीपनं पाचनं रुक्षं रुच्यं वमथुवेगदम् ॥
कफवातानुलोमनं पित्तकृद् रेचनं तथा ।
शूलाजीर्णविबन्धेषु विष्टम्भानाहगुल्मषु ।
हृद्गौरवे तथा मेहे विड़ं शुभफलप्रदम् ॥

(3) BIRA (AN ARTIFICIAL SALT).

Bira is saline in taste, warm in its effect on the system, acrid, alkaline, light, digestive, coarse, increaser of appetite, causing nausea, pacifier of kapha and vayu, increaser of pittam, and laxative It is efficacious in colic, indigestion, constipation, flatulence, intestinal obstruction, abdominal tumour, heaviness of the heart, and spermatorrhoea.

विड़लवणस्य निर्माणम् ।

प्रथमोविधिः ।

द्व्यधिकाशीतिभागाश्च सामुद्रलवणस्य वै ।
पथ्यामलकस्वर्जीनां ग्राह्योभागो पृथक् पृथक् ॥
द्रावितं सर्वमेकत्रं दृष्ट्वा वह्निमपानयेत् ।
स्वतःशीतं समुद्धार्य रक्षयेद् यत्नतो विड़म् ॥

Preparation of bira salt (black salt),

First process.

Eighty two parts of sea-salt and one part each of haritaki, amalaki, and sarji (refined natron)—all powdered well, are to be heated strongly in an earthen vessel, till they are fused together into one lump.

द्वितीयोविधिः ।

सामुद्रमष्टभागं च धात्रीचूर्णस्य भागकम् ।
उभयं मेलयेत् सम्यग् मृत्पात्रे स्थापयेत् ततः ॥
द्रावयेत् तीव्रवह्निना ततो वह्निमपानयेत् ।
स्वतःशीतं समुद्धृत्य विड़ं योगेषु योजयेत् ॥

Second process.

Eight parts of sea-salt and one part of powdered amalaki are to be mixed together, kept in an earthen vessel, and then subjected to a strong heat till the two materials are fused together. The product, when cooled of itself, is called bira salt or black salt.

(१) सौवर्चलम् ।

अक्षं सौवर्चलं पाक्यमूषरं रुचकं तथा ।
क्षारश्च लवणं चैव सौवर्चलं तदौद्भिदम् ॥*

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* एष हि ऊषराख्यः क्षारः । २६१ पृष्ठं द्रष्टव्यम् ।

(4) SAUVARCHALA (SALT-PETRE).

It is the same as ushara kshara or salt-petre. It is both an alkali and a salt. For the preparation of salt-petre, see page 268.

कृत्रिमसौवर्चलस्य निर्माणविधिः ।

स्वर्जिक्षारश्च तत् तुल्यं सैन्धवं मेलयेद् द्वयम् ।
सूक्ष्मचूर्णीकृतं सर्वं निदध्याद् मृद्घटे ततः ॥
तदा विनिःक्षिपेत् तत्र चूर्णाधिकं जलं शुभम् ।
पचेत् सर्वं ततो धीरो यत्नतो चण्डवह्निना ॥
यावच् चूर्णं द्रुतिं याति जलमपि विशोष्यते ।
शोषितेऽपि नीरे सम्यक् किञ्चित्कालं विपाच्यते ।
स्वतः शीतं समुद्धार्यं सौवर्चलमतः परम् ॥
पटुसौवर्चलं तद्धि क्षारसौवर्चलं न तु ।

Preparation of artificial sauvarchala.

An equal quantity of powdered swarji (natron) and saindhava (rock-salt) are to be mixed together and dissolved with water in an earthen vessel which is to be heated strongly till the solution melts well and then dried up. The heat is to be continued for some time after the drying up of the product.

The product may be used as sauvarchala salt, and not as sauvarchala kshara.

(*N.B.*—The salt, thus prepared, may be used in lieu of salt-petre, where the emphasis is laid on the word 'salt', but where there is a stress on the word "kshara", only salt-petre, and not its substitute, should be used.)

(५) रोमकम् ।*

अस्य नामानि ।

रोमकं रोमलोणं च साम्बरं सम्बरोद्भवम् ।
शाकम्भरीह्रदोद्भवं गड़ाख्यं लवणं हि तत् ॥

अस्योत्पत्तिस्थलम् ।

जयपुराभिधे राज्ये रोमोऽस्ति लोतनीरयुक् ।
नाम्ना शाकम्भरी सोऽयं साम्प्रतं सम्बराभिधः ॥
लवणाक्तं जलं तस्य सागरनीरसंनिभम् ।
तज्जलाज् जायते लोतं † रोमकाख्यं तदेव हि ॥
रोमावती नदी तस्माद् रोमात् पुरा प्रवाहिता ।
लवणं तज्जलोत्थं च संज्ञितं रोमकं पुरा ॥
आसीत् पुरा पुरी तत्र रोमाख्या हि यशस्वती ।
साम्प्रतं वर्त्तते तत्र जयपुराभिधा पुरी ।
सम्बरादम्बराख्यां हि लेभे तत्र पुरान्तरम् ॥

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* रोमः गर्त्तं जलाशयइत्यर्थः तस्मात् जायते इति रोमकम् ।

† लोतमिति लवणम् ।

(5) ROMAKA (SAMBAR-SALT.)

In the province of Jayapura (in Rajputana), there is a salt-water lake, named Shakambhara, now called Sambar. Its water is as saline as sea-water. The salt, produced from the water of this lake, is called "romaka". In ancient times, a river named "Romavati" (now extinct) flowed from this lake. The salt which was produced from the water of this river was also called 'romaka' salt. In the vicinity of this lake, there was, in ancient times, a famous town, called 'Roma'. It was perhaps located somewhere near the modern town of Jaypore (built by king Jaysinha). There is another town in the neighbourhood, named Ambar, which is a corrupted form of Sambar (the modern name of the lake).

अस्य गुणाः ।

रोमकं कटुतिक्तं च तीक्ष्णोष्णं लावणं लघु ।
दीपकं भेदकं चैव पित्तदाहक्षयप्रदम् ।
अभिष्यन्दि तथा सूक्ष्ममर्शोनुद् वायुनाशनम् ॥

Its properties.

Romaka or sambara salt is bitter, pungent, and saline. It is acrid, warm, light, digestive, and laxative. It gives rise to pittam, inflammation, and waste. It helps the emission of phlegm (through nostrils and eyes). It is capable of passing even through the finest and minutest passages of the system, and is a pacifier of vayu.

(६) चुलिकालवणम् ।*

पाकिमो नवसारश्च चुलिकालवणं तथा ।
क्षारोऽयं लवणं चोपरसश्च कथ्यते बुधैः ॥

(6) CHULIKA SALT.

It is the same as nava-sara (or sal-ammoniac).†

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* द्वितीयखण्डे २१४ पृष्ठं तथा तृतीयखण्डे २६० पृष्ठं द्रष्टव्यम् ।

† See page 215, Vol. II, and page 262 Vol. III.

सप्तमोऽध्यायः ।

अथ विषाणि ।

विषं तु गरलः च ्ड़स्तस्य भेदानुदाहरे ।
स्थावरं जंगमं चैव गरं च त्रिविधं विषम् ॥
दशाधिष्ठानमाद्यं तु द्वितीयं षोड़शाश्रयम् ।
गरस्तु कृत्रिमं विषं विरुद्धभोजनादिजम् ॥

CHAPTER VII.

Poisons.

Poisons are of three kinds, viz. inorganic, organic, and artificial. The first is of ten different kinds, and the second of sixteen. The third is toxin arising mainly out of the eating together of different kinds of food-stuff which are not compatible with one another (e.g. milk and fish or meat; milk and sour things, etc.).

अथ स्थावरविषम् ।

मूलं पत्रं फलं पुष्पं त्वक् क्षीरं सार एव च ।
निर्यासो धातवश्चैव कन्दश्च स्थावराश्रयाः ॥

कन्दाख्यं तेषु हि श्रेष्ठमष्टादशविधं हि तत् ।
सक्तुकं मुस्तकं शृङ्गी वालुकं सर्षपाह्वयम् ॥
वत्सनाभं च कूर्मश्च श्वेतशृङ्गी तथाष्टमम् ।
इत्यष्टौ योजयेद्‌ योगे कालकूटादि वर्जयेत् ॥
कालकूटं मेषशृङ्गी हलाहलं च दार्दूरम् ।
कर्कटं मर्कटं ग्रन्थि हारिद्रं रक्तशृङ्गकम् ।
केशरं दशमं चेति वर्जनीयं भिषग्वरैः ॥

INORGANIC POISON.

Inorganic poisons are of ten different forms, viz. (1) roots, (2) leaves, (3) fruits, (4) flowers, (5) barks, (6) milk of plants or tree, (7) wood (8) exudations, (9) metals, and (10) tubers.

Of these, poisons in the form of tubers are the best. Such poisons are of eighteen different kinds, viz. (1) saktuka, (2) mustaka, (3) shringi, (4) baluka, (5) sarshapa, (6) batsa-nabha, (7) kurma, (8) sweta-shringi, (9) kalakuta, (10) mesha-shringi, (11) halahala, (12) dardura, (13) karkata, (14) markata, (1) granthi, (16) haridra, (17) racta-shringa, and (18) keshara.

Of these eighteen, the first eight are to be used according to directions, whereas the last ten (viz. from kalakuta to keshara) are to be avoided altogether.

कन्दविषाणां परिचयः ।

(१) सक्तुकः ।

यद्ग्रन्थिः सक्तुकेनेव पूर्णमध्यः स सक्तुकः ।
पुण्डरीकं स एव हि मध्यश्वेतं च दृश्यते ॥
चित्रमुत्पलकन्दाभं सुपिष्टं शक्तुवद् भवेत् । *
सक्तुकं तद् विजानीयाद् दीर्घवेगं महोल्वणम् ॥

Descriptions of tuber poisons.

(1) *Saktuka.*

Saktuka or pundarika is that kind of poisonous tuber, the interior of which appears to be made of saktu (dried and powdered barley), and is of white colour. The tuber itself is as attractive as that of a lily. It gives the appearance of saktu (dried and powdered barley) when pestled well. The poison acts very swiftly and is very strong.

(२) मुस्तकम् ।

ह्रस्ववेगं च रोगघ्नं मुस्तकं मुस्तकाकृति ।

(2) *Mustaka.*

Mustaka poison is slow in action. It cures diseases and has the appearance of mustaka (cyperus rotandas).

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* चित्रमिति मनोहरम् ।

(३) शृङ्गी ।

यस्मिन् गोशृङ्गके बद्धे दुग्धं भवति लोहितम् ।
तं शृङ्गीति विजानीयाद् वर्णेन कृष्णपिङ्गलम् ॥

(3) *Shringi.*

This poisonous tuber, if tied up with the horns of a cow, makes it yield milk of blood-red colour. This tuber is of a blackish-tawny colour.

(४) वालुकम् (सैकतम्) ।

वालुकं वालुकोपमं ज्वरादिसर्वरोगहृत् ।
सिकताभिरिवापूर्णो ग्रन्थिरस्य बुधैर्मतः ॥

(4) *Baluka (saikata).*

Baluka tuber appears to have its inner part filled with sand, as it were. It cures fever and other diseases.

(५) सर्षपम् ।

पीतवर्णं ज्वरघ्नं च सर्षपं विषमुच्यते ।
कन्दरोम्णि विषं तद्धि सर्षपाभकणाचितम् ।
स्थूलसूक्ष्मैः कणैर्युक्तं श्वेतपीतैर्विलोभकम् ॥

(5) *Sarshapa.*

Sarshapa tuber is yellow in colour, and is a curer of fever. It has got hair-like shoots which only are poisonous. The holes or pores where these hair-like shoots grow, are full of particles having

the appearance of mustard seeds. Some of these particles are big, and the rest are small. Some of them are white, whereas the others are yellow. The tuber itself is, therefore, very attractive to look at.

(६) वत्सनाभः ।

(क)

वत्सनाभिनिभः कन्दो न दीर्घः पञ्चकाङ्गुलात् ।
स्थूलतरो न गोस्तनाद् द्विविधो वत्सनाभकः ॥
आशुकारी लघु स्त्यागी* शुक्लः कृष्णोऽन्यथा भवेत् ।
प्रयोज्यो रोगहरणे वत्सनाभिद्वयं मतम् ॥

(ख)

निर्गुण्डीपत्रवर्णायुग् वत्सनाभ्याकृतिस्तथा ।
यत्पार्श्वे न तरोर्वृद्धि र्वत्सनाभः स पाण्डुरः ॥

(6) *Batsa-nabha (aconite).*

The tuber, named batsa-nabha, has the appearance of a cow's udder. It is not more than five angulis in length; neither is it thicker than cow's udder. It is of two varieties, viz. white and black. The first variety is swift in its action, light, and laxative. The black variety possesses opposite properties. Both the varieties are used in medicines as well as in rasayana.

(b)

Batsa-nabha (or aconite) has the colour of nirgundi leaves. It resembles the navel of a calf.

* त्यागीति मलादेरेचकः ।

Trees and plants growing around it do not thrive at all. It is pale-white in colour.

वत्सनाभस्य गुणाः ।

नेपालशृङ्गी नैपाली चामृतं विषनामकम् ।
वत्सनाभं कटु स्वेद्यं तिक्तं मूत्रलमेव च ॥
आग्नेयं वेदनाघ्नं च सादनं शूलनाशनम् ।
अभिघातरुजं हन्ति वीसर्पं कफजान् गदान् ॥
वातजान् निखिलांश्चापि सन्निपातोद्भवं ज्वरम् ।
आमवातं महाघोरं हृद्रोगमपि दारुणम् ॥

Properties of Aconite.

Aconite is bitter and pungent. It causes perspiration and discharge of urine. It is digestive, remover of pain, causing depression, and curer of colic and pain due to percussion. It is efficacious in erysipelas, diseases due to an excess of kapha and vayu, fever due to an excess of the three doshas, rheumatism, and heart disease.

(७) कूर्म्मः ।

कूर्मवद् दृश्यते यत्तु तत् कूर्मं इति भाषितम् ।

(7) *Kurma.*

The tuber poison, which resembles a tortoise in appearance, is called kurma.

(८) श्वेतशृङ्गम् ।

श्वेतशृंगं विजानीयात् प्रायशः श्वेतशृङ्गवत् ।
शृङ्गिकमिव तद् दुग्धं रञ्जयति गवां खलु ।
फणाकारं कथञ्चित् तदतो दर्विकमुच्यते ॥

(8) *Sweta shringa.*

Sweta-shringa or darvika is like a white horn or snake's hood in appearance. Like shringi, it makes a cow yield milk of blood-red colour, if it is tied up with its horns.

(९) कालकूटः ।

अस्ति विषतरुः कश्चिदश्वत्थसंनिभः खलु ।
निर्यासः कालकूटोऽस्य मुनिभिः परिकीर्त्तितः ॥
काकचञ्चुनिभो वर्णाकृतिभ्यां ज्ञायते हि सः ।
वृत्तः कन्दो भवेदस्य जम्बीरसन्निभासितः ॥
कालकूटं विजानीयाद् घ्रातमात्रं मृतिप्रदम् ।
स हि क्षेत्रे शृङ्गवेरे कंकने मलये भवेत् ॥

(9) *Kala-kuta.*

There is a poisonous tree of the appearance of an aswattha. Exudation of this tree is called kala-kuta. This resembles a crow's eye in appearance and in colour.

The tuber of this tree is globular and black, like a lime fruit. This tuber is so strongly poisonous that even its odour is sufficient to take

away the life of a human being. This tree grows in the provinces, named "shringabera," "Konkan" and the "malaya" hills in the Deccan.

(१०) मेषशृङ्गी ।*

आविकशृङ्गतुल्यो यो मेषशृङ्गी स कथ्यते ।
शृङ्गिकमिव तद् दुग्धं रञ्जयति गवां खलु ॥

(10) *Mesha-shringi.*

It resembles a ram's horn in appearance. It also makes a cow yield milk of blood-red colour, if it is tied up with its horns

(११) हलाहलः ।

गोस्तनाभफलो गुच्छस्तालपत्रच्छदस्तथा ।
तेजसा यस्य दह्यन्ते समीपस्था द्रुमादयः ॥
असौ हालाहलस्तरुः किष्किन्ध्यायां हिमालये ।
दक्षिणाब्धितटे देशे कंकने च प्रजायते ॥
भंगुराकन्दवत् कन्दः तरोस्तस्यापि कथ्यते ।
अन्तर्नीलो बहिः श्वेतः कन्दोऽसौ हि हलाहलम् ॥

(11) *Halahala.*

The tree named 'halahala' has fruits like cow's udder. The bunch of its fruits has the appearance of an umbrella made of palm leaves. No tree, plant,

* मेषशृङ्गाख्यं विषदोषहीनं द्रव्यान्तरं वर्त्तते ।

etc. grows in the vicinity of this poison tree. It grows generally in kiskindhya, the Himalayas, the south-sea coast, and kankana. Its tuber has the appearance of the tuber of atibisha. The halahala tuber is blue inside and white in the outside.

(१२) दार्दूरम् ।

दर्दूराख्ये गिरौ यत्तु जायते मलयान्तिके ।*
दार्दूरं कथ्यते तद्धि ब्रह्मपुत्रश्च कर्दमम् ॥
वर्णेन कपिलं तच्च कर्दमसंनिभं तथा ।
दर्दूरे मलये चापि जायते तद्विषोल्वणम् ॥

(12) *Dardura.*

It grows in the hill named 'Dardura' situated near the Malaya mountain. It is also called brahma-putra and kardama. It is tawny in colour and is like mud in appearance. It is strongly poisonous and grows in the Dardura and the Malaya hills.

(१३) कर्कटं कर्कोटं वा ।

कर्कोटं कपिवर्णं स्यात् कर्कोटकसमप्रभम् ।†
तदेव विषमं विषं रेखाभ्यन्तरतो मृदु ॥

* मलयाचलसन्निधौ दर्दूरनामा गिरिरस्ति । तथा हि—स्तनाविव दिशस्तस्याः शैलौ मलयदर्दूरौ [रघुवंशम् ४।५१] ।

† कर्कोटक इत्यस्य स्थले कर्कटक इत्यस्य सम्भावितपाठस्य साधुतरतापि सुधीभिर्विचार्या ।

(13) *Karkata or Karkota.*

It has the colour of a monkey. It resembles a karkota fruit (or karkata—a crab). It is soft only underneath the stripes found upon its surface. (Elsewhere it is hard).

(१४) मूलकम् ।

श्वदंष्ट्ररूपसंस्थं च शुक्लकन्दं हि मूलकम् ।
तदेव मूलकोपमं मर्कटनामकं च तत् ॥
क्वचित् क्वचिद् विषं तद्धि यमदंष्ट्रेति कथ्यते ।
सुराष्ट्रे जायते तस्मात् सौराष्ट्रिकं तदुच्यते ॥

(14) *Mulaka.*

Mu.aka is a white tuber. It has the appearance of dog's teeth and also of mulaka (raddish). It is also called markata, jama-danstra, and saurastrika. The last-mentioned name has been given to it, on account of its growing in the province of surat.

(१५) ग्रन्थिः ।

हरिद्राग्रन्थिवद् ग्रन्थिः स स्यात् कृष्णोऽतिभीषणः ।

(15) *Granthi.*

The tuber of granthi plant has knots like those found in tubers of turmeric. It is black in colour, and is terribly poisonous.

(१६) हारिद्रः ।

हरिद्रातुल्यमूलो यो हारिद्रः स उदाहृतः ।
विराटे जायते तस्माद् वैराटकं च कथ्यते ॥
मूलाग्रयोः सुवृत्तः स्यादायतः पीतगर्भकः ।
कञ्चुकाढ्यः स्निग्धपर्वा हारिद्रः शक्तुकन्दकः ॥

(16) *Haridra or vairata.*

The tuber of this plant is like that of turmeric. It is also called "vairata", simply because it grows mainly in the province of Virata. Both the extremities of this tuber are well-rounded. It is broad-shaped, and is yellow inside. It has a fine skin or covering. Each of the parts of this tuber between one knot and the nearest is smooth or appearing to be smeared with oil. This tuber (like saktuka) resembles, when pestled and made into a paste, shaktu or fried and powdered barley.

(१७) रक्तशृङ्गी ।

गोशृङ्गाग्रेऽथ विक्षिप्तो नासयासृक् प्रवर्त्तते ।
लघुर्गोस्तनवत्कन्दो रक्तशृङ्गीति तद्विषम् ॥

(17) *Racta-shringi.*

This tuber, if thrown upon the horns of a cow, causes the shed of blood through its nostrils. This tuber is light in weight and has the appearance of cow's udder.

(१८) प्रदीपनः ।

शुष्कार्द्र इव किंजल्कमध्ये तत् केशरं विदुः ।
वर्णतो लोहितः स स्याद् दीप्तिमान् दहनप्रभः ॥
महादाहकरः पूर्वैः कथितः स प्रदीपनः ।
महाविषाह्वयश्चासौ केशरश्चापि कथ्यते ॥

(18) *Keshara, Pradipana or Mahabisha.*

It has the appearance of a dried ginger tuber, kept in the midst of filaments or blossoms of a flower. It is red and resembles fire in colour. It causes a terrible inflammation on that part of the body which comes in contact with this poison.

विषाणां व्यवहारः ।

धातुवादे विषार्थे च क्षेमकार्ये * क्वचित् क्वचित् ।
युज्यते कालकूटादि न भैषज्ये रसायने ॥
सक्तुकादिं प्रयुञ्जीत सर्वरोगे रसायने ।
विप्रादिजातिभेदेन यथाविधि सुशोधितम् ॥

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* क्षेमकार्यमिति रसादिना नागवङ्गादीनां स्वर्णे वा रौप्ये रूपान्तरीकरणम् । एतदेव वेधनकार्य्यमपि कथ्यते । तथाहि रामराजीयग्रन्थस्यानुक्रमणिकायां—

रसविद्या त्रिधा प्रोक्ता धातुवादश्चिकित्सितम् ।
दुर्लभा क्षेमविद्या च सर्वविद्यासु ता वराः ॥
चिकित्सा द्वितयी ज्ञेया व्याधीनां जरसस्तथा ।
जराव्याधिविनाशिनी चिकित्सा हि रसायनम् ॥

Use of tuber-poisons.

The ten kinds of poisons beginning with kala-kuta may be used sometimes for the purposes of metallurgy, preparation of poison, and kshema operations or alchemy *; but they should never be used in medicines of any kind.

Only the eight tuber-poisons beginning with saktuka should be used, well-purified and as prescribed in the medical treatises. In using these eight in medicines, care should be taken to see that their use is decided upon with reference to the caste or class of poisons to which a particular member of this group belongs (see below).

विषाष्टकस्य जातिभेदः ।

(१)

श्वेतो रक्तश्च पीतश्च कृष्णश्चेति चतुर्विधः ।
ब्राह्मणः क्षत्रियो वैश्यः क्रमाज् ज्ञेयश्च शूद्रकः ॥
श्वेता वा यदि वा पिङ्गा मधुरा वोषराऽपि वा ।
लोमशा ब्रह्मजातिः स्यात् क्षत्रजातिस्तु लोहिता ॥
पीता वा मधुरा किञ्चित् वैश्यजातिस्तु धूसरा ।
कृष्णा शूद्रजातिर्ज्ञेया विषाणां च भिषग्वरैः ॥

* The science of kshema or khema deals with transformation of base metals into gold. The term khema has been contracted into the Persian "kimia" or al-chemia. Vide page 100 of the author's work, "Indian civilization and its Antiquity."

(२)

क्षीरं संपूर्य भाण्डेऽपि विषं दत्वा विलक्षयेत् ।
यद्वर्णं जायते क्षीरं तेन जातिं विनिर्दिशेत् ॥
शुक्लं रक्तं तथा पीतं कृष्णं चेति चतुर्विधम् ।
वर्णानि ब्राह्मणादीनां ज्ञायन्ते भिषजां वरैः ॥
क्षिप्तं दुग्धे विषं वैद्यो जानीयात् क्रमशो यदि ।
श्वेतं रक्तं तथा पीतं कृष्णं चोष्णं तदेव च ॥
ब्राह्मणः क्षत्रियो वैश्यः शूद्रश्च हि यथाक्रमम् ॥

Caste or classification of the eight poisons referred to above.

(1)

Brahmana, kshatriya, vaisya, and shudra are generally of the following colours, respectively:—(1) white, (2) red, (3) yellow, and (4) black.

A poison is of the Brahmana or wise caste, if it is white or tawny, is sweet or saltish in taste, and has got hair-like shoots over its body. The kshatriya (or warrior class) of the poisons is red in colour. The vaisya (merchant class) is yellow or grey and somewhat sweet in taste. The shudra (or the agricultural and serving class) is black in colour.

(2)

The caste of a poison may also be ascertained by throwing it into milk. If the milk into which the

poison has been immersed assumes a white colour, the poison is of the Brahmana caste; if the milk turns red in colour, the poison is of the kshatriya caste; if the milk is of yellow colour, the poison is of the vaisya caste; and if the milk is of black colour, the poison is of the shudra caste. The milk also grows warm at the touch of the poison.

ब्राह्मणादिविषाणां गुणाः ।

रसायनवरो विप्रः क्षत्रियो रसकर्मकृत् ।
वैश्यः कुष्ठविनाशनः शूद्रस्तु मृतिदायकः ॥
ब्राह्मणो दीयते रोगे क्षत्रियो विषभक्षणे ।
वैश्यस्तु क्षुद्ररोगेषु सर्पदष्टाय शूद्रकः ॥

Properties of poisons, according to caste.

The Brahmana (white-coloured) poison is a curer and preventer of diseases and senile decay. The kshatriya (red-coloured) is used in mercurial operations. The vaisya (yellow-coloured) is a curer of leprosy, and the shudra (black-coloured) is giver of death.

The Brahmana variety of poisons is to be used in diseases; the kshatriya variety to be given to a patient who has swallowed some poison; the vaisya variety is to be used in diseases of minor importance, and the shudra variety to be given to a man who has been bitten by a poisonous snake.

सामान्येन विषाणामवगुणाः ।

सर्वाणि कुशलैर्ज्ञेयान्येतानि दशभिर्गुणैः ।
रूक्षमुष्णं तथा तीक्ष्णं सूक्ष्ममाशु व्यवायि च ।*
विकाशि † विसरं चैव लघ्वपाकि च तत् स्मृतम् ॥
तद्रौक्ष्यात् कोपयेद् वायुमौष्ण्यात् पित्तं सशोणितम् ।
मानसं मोहयेत् तैक्ष्ण्यादङ्गबन्धांश्छिनत्त्यपि ॥
शरीरावयवान् सौक्ष्म्यात् प्रविशेत् विकरोति च ।
आशुत्वादाशु तद्धन्ति व्यवायात् प्रकृतिं ‡ भजेत् ॥
क्षपयेच्च विकाशित्वाद् दोषान् धातुमलानपि ।
वैसर्प्यादतिरिच्येत दुश्चिकित्स्यं च लाघवात् ॥
दुर्जरं चाविपाकित्वात् तस्मात् क्लेशयते चिरम् ।
स्थावरं जंगमं यच्च कृत्रिमं चापि यद्धितम् ।
सद्यो व्यापादयेत् तत्तु ज्ञेयं दशगुणान्वितम् ॥

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* पूर्वं व्याप्याखिलं कायं ततः पाकं च गच्छति । व्यवायि तद् यथा भङ्गा फेनञ्चाहिसमुद्भवम् ॥ फेनमत्र निर्यासः अहीति अहिनाम गुल्म न तु सर्पः ।

† विकाशीति ओजःशोषणपूर्वकसन्धिबन्धनशैथिल्यकारकम् । विसरमिति भेदकम् ।

‡ प्रकृतिमिति आत्मव्यतीतनिखिलदेहम् । भजेदिति व्याप्नुयात् ।

Evil properties of the poisons in general.

The following are the demerits of poisons in general :—(1) capacity for drying up the oily or fatty substance in the system, (2 causing heat, (3) violence, (4) capacity to enter into the minutest part of the body, (5) quickness of action, (6) capacity to spread through the whole of the system without being digested, (7) capacity to dry up the vital fluid which pervades the whole system, and to slacken the joints of the different limbs, (8) capacity to split up (9) lightness, and (10) incapacity for being digested.

A poison has the following functions on account of its possessing the ten demerits mentioned above, respectively :—It (1) increases vayu, (2) increases pittam and vitiates blood, (3) deprives the mind of consciousness and slackens the cohesion of the different limbs to one another, (4) spreads even through the minutest parts of the body and deranges them,(5) can take away life very quickly, (6) attacks the whole of the physical body without being digested at all, (7) destroys the three doshas (vayu, pittam, and kapha), the seven dhatus (chyle, blood, semen, flesh, bone, marrow, and fat), and the dirts (urine, stool, etc.), (8) causes much purgation, (9) is too light to be easily caught hold of and neutralized by medicines, and (10) incapacity for being digested which is the cause of the duration of the trouble due to it.

Any poison, whether organic, inorganic, or artificial, if endowed with all these demerits, has the power to kill life in a short time.

विशेषेण स्थावरविषजनितविकाराः ।

स्थावरं तु ज्वरं हिक्कां दन्तहर्षं गलग्रहम् ।
फेनछर्द्यरुचिश्वासं मूर्च्छां च कुरुते विषम् ॥

Special Troubles due to inorganic poison,

These are :—fever, hiccough, tickling and irritating sensation in the teeth, swelling of the neck and throat, coming out of froth from the mouth, nausea, aversion to food, difficult respiration, and loss of consciousness.

सहसा विषशीलने विकाराः ।

वेगा ह्यष्ट प्रजायन्ते सहसा विषशीलिनः ।
प्रथमे त्वग्विकारः स्याद्द्वितीये वेपथुर्भवेत् ॥
दाहो वेगे तृतीये स्याच् चतुर्थे देहवैकृतम् ।
फेनोद्गतिः पञ्चमे स्यात् स्कन्धयोर्भञ्जिता ततः ॥
वेगे च सप्तमे जाड्यमष्टमे मरणं ध्रुवम् ।
एवं ज्ञात्वा भिषग्वरः प्रतीकारं समाचरेत् ॥

Troubles due to a sudden entrance of poison into the system.

Eight different stages follow the entrance of poison into a human system. In the first stage, there is a discoloration of the skin ; in the second, there is shivering ; in the third, inflammation ; in the fourth, disfigurement of the whoie body ; in the fifth,

coming out of froth from the mouth; in the sixth, breaking of the shoulders; in the seventh, loss of movement of the limbs; and the eighth stage is the stage of death.

Having regard to all these, a physician should treat the patient.

विषजविकारस्य चिकित्सा ।

(१)

अतिमात्रं विषे भुक्ते वमनं कारयेत् तदा ।
अजादुग्धं प्रदद्याच्च यावद् वान्तिर्न जायते ॥
तद्दुग्धं दीयते पुनः पुनरेव वमेः परम् ।
न देयं तत् पुनर्वारं यदा वान्तिर्गमिष्यति ॥
अजादुग्धं यदा देहे स्थिरीभवति देहिनः ।
विषवेगं तदोत्तीर्णं जानीयात् कुशलो भिषक् ॥

Treatment of poison.

(1)

On the entrance of poison into a human system, the patient is to be made to vomit. He is to drink goat's milk so long as he does not commence vomitting. Then he is to continue drinking the same milk after each act of vomiting, till the vomiting stops altogether. The strength of the poison is to be considered nullified as soon as the drinking of goat's milk is followed no more by vomiting. In other words, no more milk is to be drunk by the patient

when it is found that the last draft of milk is not vomited out.

(२)

अतिमात्रे विषे पीते प्रतिकार्यं हि सत्वरम् ।
पित्तान्तं वमनं कार्यमजादुग्धस्य पानतः ॥
अथवा राजिकाचूर्णलवणवारिशीलनात् ।
मदनस्य फलेन वा मीनधौताम्बुनाऽपि वा ॥
रेचनं हि तदा कार्यं कफान्तं कविशेखरैः ।
गोघृतं च पिबेत् ततो विषघ्नं जीवनप्रदम् ॥

(2)

Poison, taken in an excessive quantity, should be remedied at once. The patient is first of all to be made to vomit till he vomits pittam (or bile). The vomitting is to be effected by means of drinking goat's milk; or water mixed with powdered raji (rye seeds) and saindhava salt; or madana fruit pestled with water; or water with which fish has been washed off. After vomiting, the patient is to be purged till kapha or mucus comes out without stool. He is next to drink some cow's ghrita (clarified butter), which is a destroyer of poison and giver of vitality.

(३)

विषं हन्याद् रसः पीतो रजनीमेघनादयोः ।
सर्पाक्षी टंकनं वापि घृतेन विषहृत् परम् ॥

पुत्रंजीवफलान्तःस्था मज्जा वा निम्बुवारिणा ।
पीता च लेपिता गात्रे नेत्रयोश्चांजनीकृता ॥

(3)

The following may be used for the purpose of destroying poison :—(a) drinking of the juices of turmeric tuber and meghanada (tanduliya); or (b) gandha-nakuli or tankana, mixed with clarified butter; or (c) kernel of the fruit of putranjiva, drunk with lemon juice, and the same pestled with water and used as a plaster upon the skin and as a collyrium for the eyes.

(४)

जातीनीलीश्वरीसिन्धुकाकमाच्यद्रिकर्णिका ।*
त्रिफला करवीरं च कुष्ठं मधुकजीरकम् ॥
क्षीरवृक्षत्वगेलेति विषघ्नोऽयं गणः स्मृतः ।
विषघ्नं गोघृतं चैव माङ्गल्यं जीवनं स्मृतम् ॥

(4)

The following group of vegetable drugs is a destroyer of poison :—jati (jessamine), nili indigo plant), iswari-mula, saindhava(rock-salt), kaka-machi, aparajita, triphala, karabira, kushtha, jasthi-madhu, jira, barks of kshira trees, (such as, aswattha, vata, etc.), and ela (cardamoms).

* ईश्वरीति ईश्वरीमूलं ईशेर मूल इति भाषा ।

Cow's butter (clarified) is also a destroyer of poison.

(५)

अतिमात्रे विषे पीते पेयं घृतमनन्तरम् ।
सभार्गीदधिधूमोत्थसारिवातण्डुलीयकम् ।
आगारधूममञ्जिष्ठायष्ट्याख्यैश्च समन्वितम् ॥

(5)

If poison is taken in excess, cow's ghrita (clarified butter), mixed with bhargi, dadhi (curd), vajrakshara (kshara prepared from snuhi plant), anantamula, tanduliya, soot (smoke condensed), manjista, and jastimadhu, should be swallowed by the patient.

(६)

विषार्त्तो मधुसर्पिर्भ्यां चूर्णितामर्जुनत्वचम् ।
टंकनं मेघनादेन मधुना सह वा पिबेत् ॥

(6)

One who has taken poison in excess should take powdered bark of arjuna, mixed with honey and clarified butter; or he should take purified tankana mixed with honey and the juice of tanduliya roots.

प्रशस्तविषस्य गुणाः ।

युक्तियुक्तं विषं ज्ञेयं प्राणदायि रसायनम् ।
योगवाहि त्रिदोषघ्नं बृंहणं वीर्यवर्द्धनम् ॥

ये दुर्गुणा विषेऽशुद्धे ते स्युर्हीना विशोधनात् ।
तस्माद् विषं प्रयोगेषु शोधयित्वा प्रयोजयेत् ॥

Merits of good poisons.

Poison, if taken in the prescribed way, is an increaser of vitality and curer and preventer of diseases and senility. It is an increaser of the properties, good or evil, of a thing which is taken with it. It pacifies the three doshas, is nutritious, and increases semen. The demerits of salutary poisons are removed by their purification (in the way to be described later). Poisons are, therefore, to be duly purified, before they are used as medicine.

कन्दविषस्य संग्रहविधिः ।

उद्धरेत् फलपाकान्ते विषं नवं घनं गुरु ।
अव्याहतं विषहरैर्वातादिभिरशोषितम् ।
रक्तसर्षपतैलेन लिप्तवाससि धारयेत् ॥

How tuber-poison is to be procured.

Tuber poisons (of course, only those of them which are commendable) are to be taken out only when their fruits have ripened ; when they are still fresh and heavy ; and have not yet been deteriorated by such antipoisonous agencies as wind, etc. Thus procured, they are to be kept wrapped up in clothes saturated with the oil of red mustard seeds.

कन्दविषस्य शोधनम् ।

प्रथमोविधिः ।

कर्त्तितं चणकप्रायं विषं संरक्ष्य भाजने ।
तत्र गोमूत्रकं क्षिप्त्वा प्रत्यहं नित्यनूतनम् ॥
शोषयेत् त्रिदिनादूर्द्ध्वं[1] धृत्वा तीव्रातपे ततः ।
चूर्णितं तत् प्रयुञ्जीत गालितं वाससा विषम् ॥

Purification of tuber poisons.

First process.

These are purified, if they are cut into pieces of the size of chanaka grams, and kept immersed for three days in a pot containing cow's urine, which is to be replaced by fresh urine after every 24 hours. The pieces are then to be dried by the strong heat of the sun. They are next to be powdered, and sifted through a piece of cloth. The poison, thus purified, may be used in medicines.

द्वितीयोविधिः ।

दोलायां त्रिफलाक्वाथे छागीक्षीरे दिवानिशम् ।
पाचितं शुद्धिमायाति कन्दाख्यं शुभदं विषम् ॥

Second process.

Tuber poisons of beneficial nature are purified, if they are boiled, by means of a Dola-Jantram, with decoction of triphala and goats' milk, for 24 hours at a stretch.

तृतीयोविधिः ।

गोमूत्रपूर्णपात्रे च दोलायन्त्रे विषं पचेत् ।
यामाष्टकं प्रयत्नेन ततोऽयं शुद्धिमाप्नुयात् ॥

Third process.

Poisons are purified, if they are boiled for 24 hours in a Dola-Jantram, filled with cow's urine.

कन्दविषस्य मारणम् ।

समटंकणसंपिष्टं तद्विषं मृतमुच्यते ।
योजयेत् सर्वरोगेषु न विकारं करोति तत् ॥

Killing of tuber poison

Purified tuber poison is killed, if it is rubbed with an equal quantity of tankana. It may then be used in medicines without producing any disturbance in the system.

विषसेवने पात्रापात्रम् ।

शुद्धं विषं योगवाहं योज्यं योगे रसायने ।
दातव्यं सर्वरोगेषु घृताशिने हिताशिने ॥
क्षीराशिने प्रदातव्यं रसायनव्रते नरे ।
न क्रोधिते न पित्ताढ्ये न क्लीवे न नृपालये ॥
क्षुत्तृष्णाश्रमघर्माध्वशोषिणे क्षयरोगिणे ।
गर्भिणीबालवृद्धेषु रुक्षेषु न कदाचन ॥
न दातव्यं न भोक्तव्यं विसंवादे विषं तथा ।
आचार्येण तु भोक्तव्यं शिष्यप्रत्ययकारणात् ॥

Persons fit to take poison.

Purified poison, which is an increaser of the properties of materials with which it is taken internally, should be used as an ingredient of medicines, meant for the cure of diseases only and of those meant for the cure and prevention of disease and senility. It may be applied in all sorts of diseases to one who takes clarified butter, salutary diet, milk, and observes the rules and regulations prescribed for taking a rasayanam.

Poison should not be administered to patients of the following description :—those who are irritable ; those who have an excess of pittam ; those who are impotent ; members of a royal family ; those who are worn out by hunger, thirst, physical strain, perspiration, and travels ; those who have got consumption ; pregnant women, children, old men, and those whose skin and other parts of the body appear to be rough and devoid of oily substance.

Neither should poison be given or taken when there is a quarrel between the physician and the patient. In order to convince the disciple of the wholesomeness of poison, the precépter himself should take it in the presence of the former.

विषसेवनस्य विधिः ।

अश्वगन्धां त्रिशूलिनं गोजिह्वां त्रिफलामपि ।
प्रथमं भक्षयित्वा च सेवयेद् गरलं ततः ॥

ब्रह्मचर्यं प्रयत्नेन विषपाने समाचरेत्।
पथ्यं स्वस्थमना भुक्त्वा तदा सिद्धिर्न संशयः॥
गव्यक्षीरघृतं पेयं शाल्यन्नं भक्षयेत् तथा।
शीतलं च पिबेत् तोयं पित्तलानि विवर्जयेत्॥
जांगलानि च मांसानि छागलोहं च मद्गुरान्।
शर्करां माक्षिकं क्षीरं सर्वं सेव्यं सुशीतलम्।
सेव्यं यत्नात् सदा पथ्यमपथ्यं दूरतस्त्यजेत्॥
विषं युञ्जीत नित्यं वै रसायनगुणैषिणः।
घृतोपस्कृतदेहस्य विशुद्धस्य हिताशिनः॥
सात्त्विकस्योदिते भानौ योज्यं शीतवसन्तयोः।
ग्रीष्मे चात्यधिके व्याधौ न वर्षासु न दुर्दिने॥

Directions for taking poison.

One who wants to take poison as a medicine should take, first of all, a decoction of aswa-gandha, gojihva, and triphala, mixed with mercury (either incinerated or in a state of compound with sulphur), and should commence taking poison from the next day. One who takes poison should observe the following directions during the period he takes the poison :—(1) He should abstain from sexual intercourse ; (2) should take his diet without any perturbation of the mind ; (3) should take cow's milk and clarified butter, with rice of shali paddy ; (4) should drink cold water, meat of jangala animals, goat's blood, madgura fish, sugar, honey, and milk—

everything cold ; and (5) whatever he should take should be salutary according to the Ayurveda.

The man who wishes to prevent or cure diseases as well as senility may take poison every day (in doses to be described below). Such a man should be of pure character, and should have previously refined his system by drinking clarified butter and taking salutary diet. Poison should be taken in the winter and spring. In cases of emergency, it may also be taken in summer, but should never be taken in the rainy season and in a bad weather.

विषभक्षणे मात्रा।

आरोटं * भक्षयेत् पुण्यं विषं सर्षपमात्रकम्।
प्रथमे दिवसे पश्चाद् द्वितीयादौ द्विसर्षपम्॥
पञ्चमे दिवसे विषं भक्षयेत् सर्षपत्रयम्।
षट्सप्ताष्टदिनेऽप्येवं नवमे वेदसंख्यया॥
भक्षयेद् राजिकावृद्ध्या यावद् गुञ्जामितं भवेत्।
यवमात्रं ग्रसेत् सुस्थो गुञ्जामात्रं तु कुष्ठवान्॥
मासमात्रप्रयोगेण कुष्ठानष्ट हरेद् विषम्।
पुण्डरीकं सविस्फोटं श्वेतमौदुम्बरं तथा॥
छिन्नभिन्नं कापालाख्यं क्लिन्नाह्वं शवगन्धि च।
षण्मासस्य प्रयोगेण कामरूपो भवेन्नरः॥
संवत्सरप्रयोगेण दिव्यदेहो भवेत् स हि॥

* आरोटमिति सुशोधितम्।

मात्रया भक्षितं यत्नाद् विषमप्यमृतायते ।
अमृतं सहसा युक्तं शीलितं विषमेव वा ॥
सर्वविधविकाराय मृत्यवे वा न संशयः ॥

Doses in which poison is to be taken.

The dose in which good and purified poisons are to be taken is one sarshapa on the first day; two sarshapas a day on the second, third,and fourth days; three sarshapas on the fifth, sixth, seventh, and eighth days; four sarshapas on the ninth day. The dose is to be increased by one sarshapa a day till it reaches one gunja or 36 sarshapas. A healthy man should not take more than one java or six sarshapas a day, but a leper should take one gunja in the maximum.

One month's use of poison, in the prescribed way, cures kushtha (leprosy) of eight different kinds, viz. pundarika, kustha with bisphota, white kustha or leucoderma, audumbara, chhinna-bhinna, kapala, klinna, and shavagandhi.*

Six month's use of poison makes a man beautiful. One year's use cures all sorts of diseases. Two year's use makes a man have a very beautiful complexion.

Taken in proper doses, poison acts like nectar. On the other hand, nectar or poison, taken all on a sudden, causes all sorts of troubles and even death.

* These should be compared with those given in Madhava Nidanam. etc.

विषसेवने पथ्यम् ।

घृतं क्षीरं सितां क्षौद्रं गोधूमं सिद्धतण्डुलम् ।*
मरिचं सैन्धवं द्राक्षां मधुरं पानकं हिमम् ॥
ब्रह्मचर्यं हिमं देशं हिमं कालं हिमं जलम् ।
विषस्य सेवको मर्त्यो भजेदतिविचक्षणः ॥

Diets considered salutary at the time of taking poison.

The following are considered beneficial to one who takes poison :—

Clarified butter, milk, sugar, honey, wheat, rice prepared from boiling paddy and then drying it up and removing the husk in the usual way, maricha (black pepper), rock-salt, raisin, sweet and cold water, abstinence from sexual indulgence, residing in cold country, cold weather, and cold water.

विषसेवने अपथ्यम् ।

अभ्यस्तेऽपि विषे यत्नाद् वर्जनीयान् विवर्जयेत् ।
कट्वम्ललवणं तैलं दिवास्वप्नानलातपान् ॥

* तण्डुलं द्विविधं यथा आतपतण्डुलं सिद्धतण्डुलं च । केवल-सूर्यातपयोगपूर्वकधान्योक्षि (ढिँकि) घातेन धान्यतुषमपसार्य यत् तण्डुलं निर्मीयते, तदातपतण्डुलं कथ्यते । आदौ जलसिद्धं धान्यं पूर्वोक्तप्रकारेण निस्तुषीकृतं तु सिद्धतण्डुलमित्यभिधीयते । पूर्व्वं कथञ्चिद् वायुवर्द्धकमन्तिमं तु तद्दोषविरहितं लघुतरं चेति विज्ञेयम् ।

दृग्विभ्रमं कर्णरुजमन्यांश्चानिलजान् गदान्।
विषं रुक्षाशिनः कुर्यान् मृत्युमेव त्वजीर्णिनः॥

Restrictions in diet in poison.

The following are to be avoided during the time poison is taken, even if one gets accustomed to it:—pungents, sours, saline food, oil, sleeping in day time, and heat of fire and of the sun. The man who, while taking poison, takes his diet without clarified butter being mixed with it, suffers from derangement of the eye-sight, diseases of the ears, and many other diseases due to the excess of vayu. Taking of poison by one who suffers from indigestion may lead even to one's death.

विषस्य प्रयोगः।

वातज्वरे विषं पेयं मस्तुना सहितं तथा।
क्षीरेण सहितं तत्तु पातव्यं पित्तजे ज्वरे॥
कफजे छागमूत्रेण सर्वजे त्रिफलाम्भसा।
रोध्रचन्दनषड्ग्रन्थाशर्कराघृतमाक्षिकैः॥
क्षीरेण च विषं युक्तं जीर्णज्वरहरं परम्।
निकुम्भकुम्भत्रिफलासर्पिर्मधुविषैः कृतः॥
निहन्ति मोदको जीर्णज्वरमेहत्वगामयान्।
शिखिकर्णरसोपेतं विषमज्वरजिद् विषम्॥

Uses of inorganic poison.

Inorganic poison of a benefic nature (such as aconite) and duly purified, cures fever due to vayu, if taken with mastu (butter-milk). It cures fever due to pittam, if taken with milk, and that due to kapha, if taken with goat's urine. Fever due to the three doshas is cured by poison taken with triphala water. Jeerna-jwara (a kind of remittent fever) is cured by poison, taken with lodhra, chandana, bacha, sugar, ghrita, honey, and milk. Jeerna-jwara, prameha, and skin diseases are cured by poison, taken with root of danti, root of trivrit, triphala, ghrita, and madhu (honey). Poison cures vishama-jwara (Malaria, kala-azar, etc.), if taken with the juice of shikhi-karna (nila-kantha vasaka).

विषं यष्ट्याह्वयं रास्ना सेव्यमुत्पलकन्दकम्।
तन्दुलोदकपीतानि रक्तपित्तस्य भेषजम्॥
रास्नाविडङ्गत्रिफलादेवदारुकटुत्रयम्।
पद्मकं क्षौद्रममृता विषं च श्वासकासजित्॥
सिता रसविषक्षीरप्रवालमधुकान्विता।
श्वासहिक्कापहा लीढ़ा छर्दिघ्ना तु विषान्विता॥
क्षीरोशीरमधुक्षाररजनीकूटजत्वचः।
च्यवनप्राशसंयुक्तं विषं क्षपयति क्षयम्॥

Racta-pitta is cured, if poison is taken with jastimadhu, rasona, ushira, and root of utpala (water lily), all rubbed with water dissolved with powdered rice.

Asthma and cough are cured, if poison is taken with rasona, viranga, triphala, deva-daru, trikatu, padma wood, and guruchi. Asthma and hiccough are cured, if poison is taken with sugar, mercury, milk, ashes of pravala (coral), and jasti-madhu. Poison cures nausea, if taken with milk, ushira, madhu, java-kshara, haridra, and bark of kutaja. It cures phthisis, if taken with chyavana prasa (a well-known medicine to be described in a subsequent volume).

मुस्तावत्सकपाठाग्निव्योषप्रतिविषाविषम् ।
धातकीमोचनिर्यासं चूतास्थि ग्रहणीहरम् ॥
कृच्छ्रघ्नं विषपथ्याग्निदन्तीद्राक्षानिशावृषाः ।
शिलाजतु विषं त्र्यूषमुदावर्त्ताश्मरीहरम् ॥

Musta, indra-java, patha, chitraka root, trikatu, ati-visha, dhataki flower, mocha-rasa (exudation of kapock tree), kernel of the stone of a mangœ fruit, and poison, all combined, cure chronic diarrhoea. Poison, haritaki, chitraka roots (or bhallataka ?), danti roots, draksa (raisin), haridra, and vasaka, all mixed together, can cure difficulty in urination. Shilajatu, poison, and trikatu, mixed together, can cure ashmari and udavarta.

गोमूत्रक्षारसिन्धूत्थविषपाषाणभेदकम् ।
वज्रवद् दारयत्येतदेकतः पीतमश्मरीम् ॥

त्रिफलास्वर्जिकाक्षारैर्विषं गुल्मप्रभेदनम् ।
पिप्पली पिप्पलीमूलं विषं शूलहरं तथा ॥
विषं द्रवन्ती मधूकं द्राक्षारास्नाशठीकणाः ।
विषा वेल्लमिशिक्षारं गुल्मप्लीहनिवर्हणम् ॥
प्लीहोदरघ्नं पयसा शताह्वा कृमिजिद् विषम् ।
वायसीमूलनिष्काथयुतं कुष्ठहरं विषम् ॥
पयस्या * राजवृक्षत्वक् त्रायन्ती वाकुची वला ।
प्लीहघ्नीभकणा एषां क्वाथेन कुष्ठजिद् विषं ॥

Cow's urine, java-kshara, saindhava salt, tuber poison, all mixed with the juice of pashana-bhedi can cure stone disease. Tuber-poison, mixed with triphala and swarji-kshara, can cure gulma (tumours in the belly). Tuber-poison with pippali roots can cure colic. Dravanti, madhuka, draksha, rasna, shathi, pippali, ati-visha, biranga, mishreyi (ani-seed) and java-kshara, all mixed with tuber-poison, can cure gulma and enlargement of the spleen. Sulpha, biranga, and tuber-poison, taken with milk, can cure enlargement of the spleen. Tuber-poison, taken with the decoction of the roots of kaka-machi, is a curer of leprosy.

Leprosy is cured, if tuber-poison is taken with decoction of arka-puspi, arag-badha, trayamana, bakuchi, bala, rohitaka, and gaja-pippali.

* पयस्येति अर्कपुष्पी ओकरा इति भाषा ।

अथ जंगमविषम् ।

जंगमस्य विषस्योक्तान्यधिष्ठानानि षोड़श । तत्र दृष्टिनिःश्वास-दंष्ट्रानखमूत्रपुरीषशुक्रलालार्त्तवमुखसंदंशविषर्द्धित-गुदास्थिपित्तशूकशवानीति । अत्र विस्तरार्थं सुश्रुतस्य कल्पस्थाने तृतीयोऽध्यायो द्रष्टव्यः ।

विषेषु जंगमाख्येषु ग्राह्यं नागोद्भवं विषम् ।
शस्तं बलवतो यूनः कृष्णसर्पाद् विषं नवम् ॥
एतच्चैवागदश्रेष्ठं त्रिदोषक्षपणं क्रमात् ।
दीपनं कुरुते सद्यो वाड़वाग्निसमं हि तत् ॥
सन्निपातप्रतीकारप्रभावप्रभुरुच्यते ।
यथाविधिप्रयुक्तं तद्विषमप्यमृतायते ।
मृतसञ्जीवनं तद्धि विसूचिषु ज्वरेषु च ॥

ORGANIC POISON.

There are sixteen different sources of organic poisons, viz. eye-sight, respiration, teeth, nails, urine, stool, semen, saliva, mense blood, sting, a peculiarly ugly sound made by the rectum, rectum, bone, bile, bristles, and carcases. (For details, see Chapter III, Kalpa-sthanam, Sushruta).

Of all the organic poisons, only poison of snakes is to be utilized for medicinal purposes. The poison obtained from a youthfull black serpent (cobra) is preferable to that obtained from other serpents. This poison also has a great healing property. It gradu-

ally pacifies the three doshas. It increases enormously the power of digestion, as soon as it is taken internally (of course, in the manner to be prescribed in vol. IV and the subsequent volumes). In curing diseases due to the abnormal excess of the three doshas, it is the master of all the drugs. Duly applied, it also acts like nectar, and is a reviver of the dead in cholera and in fever due to the three doshas.

सर्पविषस्य शोधनम् ।

प्रथमोविधिः ।

नागोद्भवं यथाप्राप्तं विषं गोमूत्रसंयुतम् ।
आतपे त्रिदिनं शुष्कं निहितं वीर्यधृग् भवेत् ॥

Purification of serpent poison.

First process.

Snake poison, in whatever way it may be obtained, is rendered powerful by mixing it with cow's urine and drying it up by sun's rays for three days.

द्वितीयोविधिः ।

सर्षपतैलसंप्लुतं सर्पविषं विशुध्यति ॥

Second process.

Snake-poison is purified, if it is mixed with mustard oil.

तृतीयोविधिः ।

पर्णतोयैर्मुनिवृन्ततुलसीपत्रयो रसैः ।
क्वाथेनापि च कुष्ठस्य भावयेत् तत् त्रिधा त्रिधा ।
तदेव सर्वदा योज्यं नाविशुद्धं कदाचन ॥

Third process.

Snake poison is purified, if it is subjected to bhavana, for three times each, with the juice of tambula, juice of the leaves of vaka, juice of the tulasi leaves, and decoction of kustha.

विशेषेण जंगमविष-जनितविकाराः ।

निद्रां तन्द्रां क्लमं दाहं सफेणं लोमहर्षणम् ।
शोथं चैवातिसारं च कुरुते जंगमं विषम् ॥

Symptoms due to organic poison.

These are sleep, drowsiness, fatigue, inflammation, coming out of froth from the mouth, standing of hair on end, swelling, and diarrhœa.

सर्पदंशनप्रतिकारः ।*

जयपालस्य मज्जानं भावयेन् निम्बुकद्रवैः ।
एकविंशतिवारं तु ततो वर्त्तिं प्रकल्पयेत् ॥

* परवर्त्तिखण्डे विषचिकित्साध्याये सविस्तरं वर्णितः ।

मनुष्यलालया घृष्ट्वा ..ो नेत्रे प्रदापयेत् ।
सर्पदंष्ट्राविषं जित्वा संजीवयति मानवम् ॥

Remedy of snake-bite.

Kernel of jayapala seed (previously purified) is to be subjected to bhavana for 21 times with lemon juice. It is then to be made into pills. Such a pill, rubbed with man's saliva, is to be put into the eyes, as a collyrium, of the man who has been bitten by a poisonous snake. By this, the man will be able to overcome snake-poison.*

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* The subject will be dealt with elaborately in a subsequent volume in the chapter on treatment of poison.

अष्टमोऽध्यायः ।

अथोपविषाणि ।

स्नुह्यर्कलाङ्गलीगुञ्जाहयारिविषमुष्टिकाः ।
कनकं जयपालश्च भल्लातकं च निर्विषा ॥
अतिविषाहिफेनं च जयाचोपविषाः स्मृताः ।
त्रयोदशकमेतत् तु विषवत् प्राणहारकम् ॥
विषैश्चोपविषैर्घृष्टश्छिन्नपक्षः शिवो भवेत् ।
मुखं च जायते तस्य धातूंश्च ग्रसते त्वरा ॥*

CHAPTER VII.

UPABISHA (SEMI-POISONS).

The following are considered semi-poisons :— Snuhi, arka, langali, gunja, karabira, visha-musti, dhattura, jayapala, bhallataka, nirvisha, ativisha, ahiphena, and jaya (bhanga). These thirteen are also killers of life, if taken in excess.

Rubbed with poisons and the semi-poisons, mercury becomes deprived of its wings, and grows hungry. It is then able to swallow and digest metals (without increasing in weight).†

* प्रथमखण्डे ७५ पृष्ठं द्रष्टव्यम् ।

† See page 76, Vol. I.

सामान्येनोपविषाणां शोधनम् ।

उपविषं विशुध्यति पञ्चगव्यैर्विभावितम् ।*
शोध्यं च दोलिकायन्त्रे क्षीरपूर्णेऽथ पात्रके ॥

Purification of semi-poisons in general.

All the semi-poisons are purified, if subjected to bhavana with the pancha-gavya (milk, curd, clarified butter, urine, and dung of cow).

They are also purified by being boiled with milk by means of a Dola-Jantram.

(१) स्नुही ।

सेहुण्डः सिंहतुण्डः स्याद्वज्री वज्रद्रुमोऽपि च ।
सुधा समस्तदुग्धा च स्नुक् तथा स्यात् स्नुही गुडा ॥
सेहुण्डो रेचनस्तीक्ष्णो दीपनो कटुको गुरुः ।
शूलामाष्ठीलिकाध्मानकफगुल्मोदरानिलान् ॥
उन्मादमेहकुष्ठार्शःशोथमेदोऽश्मपाण्डुताः ।
व्रणशोथज्वरप्लीहविषदूषीविषं हरेत् ॥†
उष्णवीर्यं स्नुहीक्षीरं स्निग्धं च कटुकं लघु ।
गुल्मिनां कुष्ठिनां चापि तथैवोदररोगिणाम् ।
हितमेतद् विरेकार्थे ये चान्ये दीर्घरोगिणः ॥

* क्षीरं दधि तथा चाज्यं मूत्रं गोमयमेव च । इति पञ्चगव्यम् ।

† दूषीविषमिति गरविषम् ।

(1) *Snuhi.*

Snuhi is laxative, strong, increaser of hunger, pungent, and heavy. It cures colic, mucus, asthila (growth of a lump of flesh alongside the navel), swelling of the belly by wind, kapha, gulma, wind in the stomach, insanity, sperma-torrhœa, leprosy, piles, dropsy, obesity, stone-disease, anemia, boils, fever, enlargement of the spleen, poison, and artificial poison.

The milk of snuhi is warm in effect, soothing, pnngent, and light. It is effective for the purpose of moving the bowels to those who suffer from gulma, leprosy, udara-roga, or some other chronic diseases.

स्नुहीक्षीरस्य शोधनम् ।

चिञ्चापत्ररसे कर्षे वस्त्रपूते पलद्वयम् ।
स्नुहीक्षीरं विभावयेत् रौद्रमध्ये प्रयत्नतः ।
द्रवे शुष्के समुत्तार्य सर्वरोगेषु योजयेत् ॥

Purification of the milk of snuhi.

One tola of the juice of the leaves of chincha, filtered by means of a piece of cloth, is to be mixed with eight tolas of the milk of arka. The liquid is then to be dried by the heat of the sun. Thus dried, the milk of arka becomes purified, and may then be used, where necessary.

(२) अर्कः ।

श्वेतार्को गणरूपः स्यात् मन्दारो वसुकोऽपि च ।
श्वेतपुष्पः सदापुष्पः स चालर्कः प्रतापसः ॥
रक्तोऽपरोऽर्कनामा स्यादर्कपर्णो विकीरणः ।
रक्तपुष्पः शुक्लफलस्तथास्फोतः प्रकीर्त्तितः ॥
अर्कद्वयं सरं वातकुष्ठकण्डूविषव्रणान् ।
निहन्ति प्लीहगुल्मार्शःश्लेष्मोदरशकृत्क्रिमीन् ॥
अलर्ककुसुमं वृष्यं लघु दीपनपाचनम् ।
अरोचकप्रसेकार्शःकासश्वासनिवारणम् ॥
रक्तार्कपुष्पं मधुरं सतिक्तं
कुष्ठक्रिमिघ्नं कफनाशनं च ।
अर्शोविषं हन्ति च रक्तपित्तं
संग्राहि गुल्मे श्वयथौ हितं तत् ॥
क्षीरमर्कस्य तिक्तोष्णं स्निग्धं सलवणं लघु ।
कुष्ठगुल्मोदरहरं श्रेष्ठमेतद् विरेचनम् ॥

(2) *Arka.*

Arka is of two kinds, viz. white and red. Both of them are laxative, and cure diseases due to vayu, leprosy, itches, poison, carbuncle, enlargement of the spleen, gulma, piles, phlegm, udara-roga, and worms in the stool.

Flower of white arka is nutritious, light, digestive,

and curer of aversion to food, emission of phlegm, piles, cough, and asthma.

Flower of red arka is sweet, bitter, and curer of leprosy, worms, phlegm, piles, poison, and racta-pitta. It is increaser of appetite and power of digestion, and beneficial in gulma and dropsy.

The milk of arka is bitter and warm, soothing, saltish, and light. It cures leprosy, gulma, udara-roga, and is a laxative.

(३) लांगली ।

हलिनी कलिहारी च शक्रपुष्पी च लांगली ।
विशल्याऽग्निशिखाऽनन्ता वह्निवक्त्रा च गर्भनुत् ॥
कलिहारी सरा कुष्ठशोफार्शोव्रणशूलजित् ।
सक्षारा श्लेष्मजित् तिक्ता कटुका तुवराऽपि च ॥
तीक्ष्णोष्णा क्रिमिहृल् लघ्वी पित्तला गर्भपातिनी ॥

(3) *Langali.*

Langali is laxative. It is efficacious in leprosy, dropsy, piles, boils, and colic. It contains kshara (alkali). It cures cough and worms. It is bitter, pungent, astringent, strong, warm, and light. It increases pitta and can cause abortion.

लांगल्या शोधनम् ।

लांगली शुद्धिमायाति दिनं गोमूत्रसंस्थिता ।

Purification of Langali.

Langali is purified, if kept immersed for one day in cow's urine.

(४) गुञ्जा ।

श्वेता गुञ्जोच्चटा प्रोक्ता कृष्णला चापि सा स्मृता ।
रक्ता सा काकचिञ्ची स्यात् काकणन्ती च रक्तिका ॥
कृष्णला काकतिक्ता च सांगुष्ठा च शिखण्डिनी ।
रुत्ता च काकजङ्घा च कर्णीचि काकतुण्डिका ॥
काका च काकिणी सौम्या काञ्ची कृष्णलकस्तथा ।
काकजिञ्ञा शिखण्डी च कम्बोजी भिल्लभूषणा ॥
चूड़ामणिस्तथारुणा शीतपाकी च ताम्रिका ।
रक्ता श्यामलचूड़ा च वन्या च कृष्णचूड़िका ।
काकादनी काकपीलुः सा स्मृताङ्गारवल्लरी ॥
गुञ्जाद्वयं तु केश्यं स्याद् वातपित्तज्वरापहम् ।
मुखशोषभ्रमश्वासतृष्णामदविनाशनम् ॥
नेत्रामयहरं वृष्यं बल्यं कण्डूव्रणं हरेत् ।
क्रिमीन्द्रलुप्तकुष्ठानि रक्ता च धवलाऽपि च ॥
वामकं ताम्रिकामूलमुच्चटाबीजकं तथा ।
उच्चटापत्रकं हितं वशीकार्ये विशेषतः ।
पत्रं गुञ्जाद्वयस्य हि हितं शूले तथा विषे ॥

(4) *Gunja.*

Gunja is of two kinds, viz. white and red. Both of them are beneficial to hair and pacifier of vayu, pittam, and fever. They cure dryness of the mouth, giddiness, asthma, thirst, intoxication, and eye-diseases. They are nutritious, strengthening, and curer of boils growing out of itches, worms, baldness, and leprosy.

Roots of both kinds of gunja and seeds of white gunja cause vomitting. Leaves of white gunja are especially efficacious in attracting affection of others. Leaves of both kinds of gunja are efficacious in colic and poison.

गुञ्जायाः शोधनम् ।

गुञ्जा काञ्जिकसंस्विन्ना प्रहराच्छुध्यति ध्रुवम् ।

Purification of Gunja.

It is purified, if boiled with kanji for 3 hours.

श्वेतगुंजायाः व्यवहारः ।

श्वेतगुंजापत्रलेपात् तद्रससेचनात् तथा ।
विषाक्तशस्त्रघातोत्थक्षतान् मुक्तिमवाप्नुयात् ॥

Use of white gunja.

Wounds due to poisonous instruments are healed up by their being washed with the juice of the leaves of white gunja, and by a paste made of the same leaves used as a plaster.

(५) करवीरः ।

करवीरः श्वेतपुष्पः शतकुम्भोऽश्वमारकः ।
द्वितीयो रक्तपुष्पश्च चण्डातो लगुड़स्तथा ॥
तृतीयः पीतपुष्पश्च कृष्णपुष्पश्चतुर्थकः ।
पाटलकुसुमश्चान्यः पञ्चैते करवीरकाः ॥
करवीरगणास्तिक्तः कषायः कटुकश्च वै ।
व्रतलाघवकृन् नेत्रकोपकुष्ठव्रणापहः ॥
वीर्योष्णः क्रिमिकण्डूघ्नो भक्षितो विषवन् मतः ॥
पीतपुष्पस्तथा कृष्णपुष्पश्च श्वेतपुष्पवत् ।
हयानां मारकौ चैव कुष्ठादिषु हितप्रदौ ॥
पाटलकरवीरस्तु शिरोरुक्कफवातहृत् ॥
श्वेतस्य पूर्वदिग्वर्त्तिमूलमहिविषं जयेत् ॥

(5) *Karavira.*

Karavira is of five different kinds, according to the colour of its flower. viz. (a) white (b) red, (c) yellow, (d) black, and (e) violet.

All of them are bitter, astringent, pungent, and are efficacious in ulcers, irritation of the eyes, leprosy, and boils. They are warm in their effect on the system. They cure worms and itches. They are to be used in the same way as poisons.

The white, yellow, and black varieties of karavira are killers of horses. The violet variety is a pacifier

of head-ache, and diseases due to kapha and vayu. The root of a white karavira proceeding east-ward is efficacious in snake-poison.

करवीरस्य शोधनम् ।

गोदुग्धे दोलिकास्वेदाद् धयाराति विशुध्यति ।

Purification of karavira.

Karavira is purified, if boiled with milk by means of Dola-Jantram.

(६) विषमुष्टिः ।

विषमुष्टिर्जलदश्च कुचिला दीर्घपत्रकः ।
कुपीलुः कुलकः काकतिन्दुकः काकपीलुकः ॥
कारस्करः कुपाकश्च कालपाकश्च रम्यकः ।
काकेन्दुर्विषतिन्दुश्च तथा मर्कटतिन्दुकः ॥
कुपीलु शीतलं तिक्तं वातलं मदकृल् लघु ।
परं व्यथाहरं ग्राहि * कफपित्तास्त्रनाशनम् ॥

(6) *Visha-musti* (*kuchila*).

Kuchila (nox-vomica) produces a cooling effect on the system. It is bitter, increaser of a slight vayu, intoxicating, light, highly remover of pain,

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* दीपनं पाचकं यत् स्यादुष्णत्वाद् द्रवशोषणम् । ग्राहि तच्च यथा शुण्ठी जीरकं गजपिप्पली ॥ दीपनमिति जठराग्नेर्दीपनं पाचनमिति आमपाचनम् ।

increaser of hunger, digestive, and destroyer of phlegm, pitta, blood, and (necessarily racta-pitta).

विषमुष्टेः शोधनम् ।

प्रथमोविधिः ।

दोलायन्त्रेन संस्विन्नः कांजिके प्रहरद्वयम् ।
किञ्चिदाज्येन भृष्टश्च विषमुष्टिर्विशुध्यति ॥

Purification of visha-musti.

First process.

Visha-musti (kuchila) is purified, if is boiled with kanji for six hours by means of a Dola-Jantram, and then fried well with a little of clarified butter (till it is reduced to charcoal).

द्वितीयोविधिः ।

स्विन्नो गोमयवारिभ्यां दोलायां पयसा ततः ।
घृतेनातः परं भृष्टो विषतिन्दुर्विशुध्यति ॥

Second process.

Visha-musti is purified, if it is boiled by means of a Dola-Jantram with cowdung mixed with water, then with milk, and then fried with clarified butter (till it is reduced to char-coal).

(७) धुस्तूरः ।

धुस्तूरो देवता धूर्त्त उन्मत्तः कनकाह्वयः ।
धत्तूरः कितवस्तूरी महामोही शिवप्रियः ॥

मातुलो मदनश्चास्य फलं मातुलपुत्रकः ।
धुस्तूरो मदवर्णाग्निवातकृज्ज्वरकुष्ठनुत् ॥
कषायो मधुरस्तिक्तो यूकालिक्षाविनाशकः ।
उष्णो गुरुर्व्रणश्लेष्मकण्डूकृमिविषापहः ॥

(7) *Dhustura (strammonium)*

Dhattura increases intoxication, complexion, hunger, and vayu. It cures fever and leprosy. It is astringent, sweet, bitter, warm, and heavy. It destroys lice, boils, phlegm, itches, worms, and poisons.

धुस्तूरस्य शोधनम् ।

धूर्त्तबीजं चतुर्यामं गोमूत्रे निहितं पुनः ।
कण्डितं निस्तुषं कृत्वा योगेषु विनियोजयेत् ॥

Purification of dhattura.

Seeds of dhattura are purified, if they are kept immersed, for 12 hours, in cow's urine, and then deprived of their husks, by being thrashed with an iron rod in an iron mortar.

(८) जयपालः ।

जैपालो जयपालश्च चक्रदन्ती विरेचनः ।
मलद्रावी कुम्भीबीजं कुम्भिनीबीजमेव च ॥
घण्टाबीजं च घण्टिणीबीजं निकुम्भबीजकम् ।
रेचनबीजसंज्ञोऽयं शोधनबीजमेव च ॥

जयपालो गुरुः स्निग्धो रेची पित्तकफापहः ।
अशुद्धोऽयमसून् हन्ति शुद्धोऽसौ सेव्यतेऽल्पतः ॥

(8) *Jayapala (croton seeds).*

Jayapala is heavy, remover of coarseness of the body, highly purgative, and pacifier of pittam and kapha. It takes away life, if taken unpurified and in excessive quantity. It should be taken purified, and in doses not exceeding one fourth of a racti a day.

जयपालस्य शोधनम् ।

प्रथमो विधिः ।

पञ्चगव्येषु संशोध्य दूरीकार्यास्तु जिह्विकाः ।
ततोऽम्लवर्गे दशधा क्षारवर्गे त्रिधा पुनः ॥
कुमारीकोद्रवक्षारजले चैव विशोधयेत् ।
शुद्ध एवं हि जैपालो वान्तिदाहविवर्जितः ॥

Purification of Jdyapala.

First process.

Jayapala seeds are purified, in the following way :—They are first of all to be boiled with the pancha-gavya (see page 331). Scale-like tissues, which are found inside the seeds, are then to be removed. The seeds are then to be treated (i.e. boiled or subjected to bhavana) with the amla-varga (vegetable acids) for ten times, with the ksharas for three times, with the juice of kanya for once only,

and with the solution of a kshara prepared from kodrava (a kind of paddy), for once only. Thus purified, jayapala seeds do not cause vomitting or inflammation.

द्वितीयो विधिः ।

जैपाल रहितं त्वगंकुर * रसैश्चाम्लिमले माहिषे
निक्षिप्तं त्र्यहमुष्णतोयविमलं खल्वे सवस्त्रार्दितम् ।
लिप्तं नूतनखर्परेषु विगतस्नेहं रजःसंनिभं
निम्बूकाम्बुविभावितं च बहुशः शुद्धं गुणाढ्यं भवेत् ॥

Second process.

Jayapala seeds are first of all to be deprived of their skins, internal scales, and of their juices by being washed off with water. They are then to be kept concealed in the dung of buffalo for three days. They are next to be washed off with hot water and cleansed. Then they are to be rubbed with a piece of rag (which is meant to soak the oil) in a mortar. Next, they are to plaster the surface of a new earthen basin (which is to soak the rest of the oil). The jaypala is thus deprived of oil, and appear like dust. It is then to be subjected to bhavana for several times with lemon-juice. Thus purified, jayapala become excellent in quality.

* अंकुरमिति जयपालबीजजिह्विका ।

तृतीयो विधिः ।

वस्त्रे बद्ध्वा तु जैपालं गोमयस्योदके न्यसेत् ।
पाचयेद् याममात्रं तु ततोऽयं शुद्धतां व्रजेत् ॥

Third process.

Jayapala seeds (deprived of their skins and scales) are purified, if they are boiled for three hours with the juice of buffalo stool.

चतुर्थो विधिः ।

जैपालं निस्तुषं कृत्वा दुग्धे दोलायुते पचेत् ।
अन्तर्जिह्वां परित्यज्य युंज्याच्च रसकर्मणि ॥

Fourth process.

Jayapala seeds are purified, if they are deprived of their skins and internal scales, and then boiled with milk by means of a Dola-Jantram.

(६) भल्लातकम् ।

भल्लातकं त्रिषु * प्रोक्तमरुस्कोऽरुष्करोऽग्निकः ।
तथैवाग्निमुखी भल्ली वीरवृक्षश्च शोफहृत् ॥
वीरतर्वनलाह्वयो व्रणहृद्भूतनाशकः ।
अन्तःसत्त्वाह्वला शैलबीजो निर्दहनस्तथा ॥
क्रिमिघ्नस्तपनश्चैव वातारिः स्फोटबीजकः ।
महातीक्ष्णः पृथग्बीजो बीजवृक्षो धनुस्तरुः ॥

* त्रिषु इति त्रिषु लिङ्गेषु ।

भल्लातकफलं पक्वं स्वादुपाकरसं लघु ।
कषायं पाचनं स्निग्धं तीक्ष्णोष्णं छेदि भेदनम् ॥
मेध्यं वह्निकरं हन्ति कफवातव्रणोदरम् ।
कुष्ठार्शोग्रहणीगुल्मशोफानाहज्वरक्रिमीन् ॥
वृन्तमारुष्करं स्वादु पित्तघ्नं केश्यमग्निकृत् ।
मज्जा भल्लातकस्य हि कषायो मधुरो लघुः ।
वृष्यश्चोष्णस्तथा शुक्रप्रदश्च कफवातहा ॥
हन्ति सर्वोदरानाहकुष्ठार्शोग्रहणीगदान् ।
तथा गुल्मज्वरश्वित्रवह्निमान्द्यक्रिमिव्रणान् ॥

(9) *Bhallataka.*

Ripe fruits of bhallataka are sweet when digested, light, astringent, digestive, soothing, acrid, warm, reducer of fat, purgative, increaser of retentive faculties, and increaser of hunger. They destroy phlegm, vayu, sores, udara-roga, leprosy, piles, chronic diarrhoea, gulma, dropsy, intestinal obstruction, fever, and worms.

Stems of bhallataka fruits are sweet, pacifier of pittam, beneficial to hair, and increaser of power of digestion.

Oil or marrow of bhallataka (which are generally used in medicines) are astringent, sweet, light, nutritive, warm, increaser of semen, pacifier of vayu and kapha. It destroys all sorts of udara-roga, intestinal obstruction, leprosy, piles, chronic diarro-

hoea, gulma, fever, leucoderma, loss of digestive power, worms and carbuncles.

भल्लातकमज्जनिष्कर्षणम् ।

भल्लातकफलं पक्वं समानीय क्षिपेज् जले ।
मज्जति यदि तत् तत्र तदैव तन्नियोजयेत् ॥
इष्टकाचूर्णसङ्घर्षैर्घर्षणाद् विमलं भवेत् ।
शस्यान् मुक्तं फलं तच्च बीजरूपं ग्रहीष्यति ॥
ईदृशान्यग्निबीजानि खण्डितानि ततः परम् ।
लौहपात्रे पचेद् यत्नाद् वारिणा हि बहुत्वणम् ॥
मज्जा भल्लातकस्येत्थं निर्गच्छेदग्नियोगतः ।
सन्तरेत् कृष्णवर्णश्च वारिपृष्ठे शनैः शनैः ॥
समुद्धरेत् प्रयत्नात् तं यावदसौ बहिर्भवेत् ।
निःशेषमागते तस्मिन् हुताशनं निवापयेत् ॥
अथवा पातयेत् सत्त्वं भल्लातकफलस्य वै ।
पातालयन्त्रयोगेन मज्जरूपं यथाविधि ॥*

Extraction of the essence (oil) of bhallataka fruits.

For the purpose of extraction of oil or essence of bhallataka fruits, only those which are ripe and sink in water are to be selected. These fruits are first of all to be denuded of the kernel surrounding

* द्वितीयखण्डे १२७ पृष्ठे पादटीका द्रष्टव्या ।

the seeds, by means of being rubbed with powdered bricks. The seeds are then to be cut into pieces and boiled with water in an iron cauldron. Thus boiled, the seeds will let out their essence of black colour, which will collect gradually upon the surface of the water. The essence or oil, thus extracted, will have to be taken up carefully. The heating will have to be discontinued when all the essence has been taken up.

The essence of the bhallataka seeds, cut into pieces, may also be extracted by means of the Patala Jantram (see foot-note, page 127, Vol. II.)

(१०) निर्विषा।*

निर्विषा मुस्तकाकारा सा हि तृणं विषापहम्।
क्षेत्राल्यादिस्थले सैव जायते हि विशेषतः॥
अविषाऽपविषा सा तु निर्विषी विषहाऽपि च।
विषाभावा विषहन्त्री निर्विषा विषवैरिणी॥
निर्विषा कटुशीतला व्रणानां रोपिका तथा।
कफवातविषास्राणां नितरां शान्तिदायिका॥
शिरोऽव्यथां निहन्त्याशु ललाटस्पर्शनात् त्रिधा।
शङ्खात् सव्येतरस्माच्च सव्यशङ्खांतकं हि सा॥†

* श्यामकाँकूला इति भाषा।

† शङ्खौ इति भ्रुवोरन्तोपरि कर्णललाटयोर्मध्ये अस्थिमर्मणी सार्द्धाङ्गुले सद्योमारके चेदाहते।

(10) *Nirvisa.*

It is a kind of grass of the appearance of mustaka. It generally grows in such places as land-marka of agricultural fields.

This grass is pungent, cool, and healer of ulcers. It pacifies kapha, vayu, impurities of the blood, and various kinds of poison. It cures head-ache immediately, if it is made to touch the skin of the fore-head by being drawn across it for three times beginning with the side of the left ear to that of the right ear.

(११) अतिविषा।

विषा त्वतिविषा विश्वा शृङ्गी प्रतिविषारुणा।
शुक्लकन्दा चोपविषा भङ्गुरा घुणवल्लभा॥
विषा सोष्णा कटुस्तिक्ता पाचनी दीपनी हरेत्।
कफपित्तातिसारामविषकासवमिक्रिमीन्॥

(11) *Ativisha.*

Ativisha is warm, pungent, bitter, digestive, and increaser of hunger. It cures kapha, pittam, diarrhoea, mucus, poison, cough, vomitting, and worms.

(१२) अहिफेनम्।

अहिगुल्मोद्भवं फलं खसफलं च कथ्यते।
विज्ञायतेऽहिफेनकं निर्यासस्तत्फलस्य हि॥

अहिफेनं सुतिक्तं च मदकृद् निद्राकारकम् ।
वेदनाक्षेपनाशनं स्पर्शशक्तिविनाशकम् ॥
कफश्वासनिबर्हणं ग्राहि पित्तानिलप्रदम् ।
धातूनां शोषणं रुक्षं दाहमेहादिवर्द्धनम् ॥
अतिसारे ग्रहण्यां च हितं स्वल्पप्रमाणतः ।
बहुदिनं न सेव्यं तत् स्वास्थ्यायुःसुखमिच्छता ॥

अहिफेनस्य भेदाः ।

अहिफेनं चतुर्विधं श्वेतं पीतं तथाऽसितम् ।
कर्वूरं च विजानीयाच्छ्वेतमग्निविवर्द्धनम् ॥
असितं जीवनं हन्ति पीतं स्तम्भकरं परम् ।
कर्वूरमहिफेनं हि मलमूत्रादिरेचनम् ॥

(12) *Opium.*

Opium is bitter, intoxicating, inducer of sleep, remover of pain and spasm, destroyer of sensibility, kapha, and asthma, digestive, increaser of hunger, increaser of vayu and pittam, destroyer of the dhatus, depriving the body of its oily substance, and causing inflammation and spermatorrhoea. It is efficacious in diarrhoea, acute as well as chronic, if taken in small quantities. No one who desires to live a healthy, happy, and long life should take opium for a long time.

अहिफेनस्य शोधनम् ।

शृङ्गवेररसैर्भाव्यमहिफेनं त्रिसप्तशः ।
अतोऽयं शुद्धिमायाति योज्यं ततो यथाविधि ॥

Purification of Opium.

Opium is purfied, if subjected to bhavana with ginger juice for twenty one times.

(१३) जया ।

मातुलानी जया भङ्गा मादिनी विजया तथा ।
चपला वीरपत्रा च सिद्धिरिन्द्राशनं च सा ।
अजेयाऽऽनन्दसंज्ञा च मादयित्री च हर्षिणी ॥
भङ्गा कफहरी तिक्ता * ग्राहिणी कषाया कटुः ।
तीक्ष्णोष्णा पित्तला लघुर्वाग्मेह † मदवर्द्धिनी ॥
मदनोद्दीपनी निद्राजननी हर्षदायिनी ।
धनुःस्तम्भं जलत्रासं विसूचीं च मदात्ययम् ।
प्रवृत्तिं रजसो बह्वीं हन्त्यपत्यप्रसूतिकृत् ॥

(13) *Jaya (bhang—Cannabis sativa.)*

Bhanga is a destroyer of kapha. It is bitter, increaser of hunger and power of digestion, light, strong, warm, increaser of pittam, spermatorrhoea,

* मतान्तरे कटुतिक्तकषाया ।
† मेहस्थले मेधेति पाठान्तरम् ।

intoxication, power of speech, sexual desire, sleep, and laugh. It is efficacious in titanus, hydrophobœa, cholera, and after-effects of alchohol and hæmorrhage after child-birth.

जयायाः शोधनम्।

प्रथमोविधिः।

वब्बूलत्वक्कषायेण भङ्गां संस्वेद्य शोषयेत्।
गोदुग्धैर्भावनां दत्वा शुष्कां सर्वत्र योजयेत्॥

Purification of jaya.

First process.

Jaya is purified, if it is boiled with the decoctio of the bark of babbula, then dried, and aga subjected to bhavana with cow's milk.

द्वितीयोविधिः।

गोदुग्धे स्वेदिता भङ्गा शोषिता घृतभर्जिता।
शुध्यति युज्यते तदा योगेषु सा यथाविधि॥

Second process.

Jaya is purified, if it is boiled with m then dried, and fried with clarified buttter.

गञ्जा।

पुष्पं जयाविशेषस्य गञ्जेति कथ्यते बुधैः।
आधिक्येन जयादोषान् गुणांश्चापि बिभर्त्ति सा
कदाचन न सेव्या सा जीवितसुखमिच्छता॥

निर्यासः स्वरसोऽपि च गञ्जाया हि विभीषणः।
गञ्जारसः * स कथ्यते पिवेत् तं न कदाचन॥

Ganja (cannabis Indica.)

Ganja is a flower of a kind of jaya. It possesses, in excess, all the merits and demerits of jaya. One who wishes to live a happy life should not take (drink or smoke) ganja.

The exudation, juice, or tincture of ganja is commonly called "charas". It is horribly injurious and should be avoided altogether.

उपविषविकाराणां शान्तिः।

अहिफेनविषस्य शान्तिः।

(१)

बृहत् क्षुद्राम्बुनः पलमात्रं दुग्धेन सेवनात्।
अहिफेनविषं शीघ्रं निराकृतं भवेद् ध्रुवम्॥

Remedy of Semi-poisons.

Opium.

(1)

Poison of opium is speedily counteracted, if four tolas of the juice of the larger variety of small ambu (karaballi ? or thorny tanduliyaka ?) is taken with milk.

* गञ्जारसः—चरस् इति भाषा।

(२)

उग्रसिन्धुस्तथा कृष्णा मज्जा मादनकी तथा ।
संपिष्टास्तप्तनीरेण पीताश्च नागफेनजित् ॥

(2)

Poison of opium is destroyed, if saindhava (rock-salt), pippali, and kernel of madana fruit are pestled together and drunk with hot water.

(३)

टंकनं नीलतुत्थं च घृतयुक्तं च दापयेत् ।
तद्वान्तिं कारयेत् सद्यो नागफेनविषं जयेत् ॥

(3)

Tankana and tutthaka are to be taken with clarified butter. This causes vomitting and thereby removes opium poison from the system.

धुस्तूरबीजस्य शान्तिः ।

(१)

वृन्ताकफलबीजस्य रसो हि पलमात्रकः ।
भक्षणाद् भुक्तधुस्तूरविषं हन्ति सुनिश्चितम् ॥

Dhattura Poison.

(1)

Poison of dhustura is nullified by drinking four tolas of the juice of seeds of egg fruits (brinjals).

(२)

कार्पासास्थियुतं पुष्पं जलेनोत्क्वाथ्य पानतः ।
धत्तूरस्य विषं हन्ति तथा लवणसेवनम् ॥

(2)

Poison of dhatura is destroyed by drinking the decoction of flowers of cotton combined with their stones. Drinking of saline water also serves the same purpose.

(३)

गोदुग्धं प्रस्थमेकं च शर्करायाः पलद्वयम् ।
तत्पानेन विषं याति धत्तूरस्य न संशयः ॥

(3)

One prastha (64 tolas) of cow's milk and eight tolas of sugar, drunk together, counter-act the poison of dhastura.

भल्लातकविकारस्य शान्तिः ।

(१)

स्वरसो मेघनादस्य नवनीतेन संयुतः ।
भल्लातकभवं शोफं हन्ति लेपेन तत्क्षणात् ॥

Remedy of Bhallataka poison.

(1)

Swelling, due to bhallataka poison, is remedied by the external application of a plaster made of butter and juice of meghanada.

(२)

दारुसर्षपमुस्तानि नवनीतेन लेपयेत् ।
भल्लातकविकारोऽयं सद्यो गच्छति निश्चितम् ॥

(2)

Troubles, due to bhallataka, are removed by the external application of devadaru, sarshapa (mustard seeds), musta, and butter, pestled together.

(३)

नवनीतं तिलं दुग्धं पिष्टं खण्डयुतं तथा ।
लेपनात् शान्तिमायाति भल्लातकविषव्यथा ॥

(3)

Swelling and irritation, due to bhallataka poison, is pacified by the external application of butter, sesamus (tila), milk, and khanda gurh (molasses purified and condensed into a tawny-coloured lump).

जयाविषस्य शान्तिः ।

(१)

शुण्ठी गोदधियुक्ता च पीता भंगाविकारनुत् ।

Remedy of bhanga poison.

(1)

Troubles due to bhanga poison are remedied by drinking shunthi, mixed with cow's curd.

(२)

पनसपत्रनीरेण जयाविषं प्रशाम्यति ।

(2)

Troubles due to bhang poison are remedied by the juice of the leaves of panasa tree, taken internally.

गुञ्जाविषस्य शान्तिः ।

(१)

मेघनादरसः पेयः शर्करासंयुतस्ततः ।
क्षीरं पेयं यथासाध्यमुच्चटाविषपीड़ितैः ॥

Remedy of gunja poison.

(1)

Troubles due to gunja poison are remedied by drinking the juice of meghanada, mixed with sugar, and then drinking milk.

(२)

मधुखर्जुरमृद्धिका वृक्षाम्लं चाम्लदाड़िमौ ।
परुषैश्चामलैर्युक्ताः सद्योगुञ्जाविकारनुत् ॥

(2)

The following removes speedily the troubles due to gunja poison :—honey, dates, grapes, tamarind, sour pomegranates, parusha fruits, and amalaki, all rubbed together and taken internally.

करवीरविषशान्तिः ।

दध्ना वा पयसा वाऽपि माहिषेण समं सिता ।
अथवार्कत्वचा पीता करवीरविषापहा ॥

Remedy of karabira poison.

Sugar-candy, mixed with buffalo's milk, or curd, or bark of arka plant, taken internally, removes troubles due to karabira poison.

स्नुहीविषविकारस्य शान्तिः ।

(१)

शीतवारिधुता पीता सिता वज्रीविषापहा ।
शीतवायुस्ततः कार्य्यः शीतच्छायां च संभजेत् ।
चिञ्चापत्रं जले पिष्ट्वा पिबेद्ध विषोपशान्तये ॥

Remedy of snuhi poison.

(1)

Troubles due to snuhi poison are removed by drinking cold water, mixed with sugar-candy, and by being treated with cooling fan and resorting to a cool and shady place. Tamarind leaves, pestled with water, should also be taken in such cases.

(२)

हेमगैरिकयुग्वारि स्नुह्यर्कजविकारनुत् ।

(2)

Water, mixed with red ochre (see page 146, vol. II), removes troubles due to the poisons of snuhi and arka.

अर्कविषविकारस्य शान्तिः ।

(स्नुहीविषविकारशान्तये द्वितीयोविधिर्द्रष्टव्यः ।)

Remedy of arka poison.

(See Remedy of snuhi poison, No. 2.)

जयपालविकारस्य शान्तिः ।

धन्याकं सितया युक्तं पीतं दध्ना समन्वितम् ।
जयपालभवं दोषं दूरीकरोति निश्चितम् ॥

Remedy of jayapala poison.

Dhanya (coriander seeds), pestled with curd and sugar, removes troubles due to croton seeds.

अथ शोधनीयानां कतिपयद्रव्यानां शोधनविधयः ।

वृद्धदारस्य बीजानि रौद्रमध्ये विशोधयेत् ।
स्वल्पसैन्धवयुक्तेन द्रवेण मिलितानि वै ॥
मयूरस्य कषायेण तानि वा परिशोधयेत् ।
अथवा दोलिकायन्त्रे दुग्धेन सह पाचनात् ॥

Purification of some materials requiring purification.

The seeds of vriddha-dara are purified, if dried in the sun, after having been saturated with a solution made of water and a little of rock-salt. They may also be purified, by being boiled with (or subjected to bhavana with) the decoction of apamarga; or by being boiled with milk by means of Dola Jantram.

अपामार्गकषायेण निम्बबीजं * विशोधयेत् ।
शिग्रू कार्पासबीजानि अपामार्गस्य बीजकम् ।
घर्मेण शोधयेत् सर्वमेतद् द्रव्यान्तरं विना ॥
कषायेणेन्द्रवारुण्या राजवृक्षस्य बीजकम् ।
मूलक्काथैः कुमार्य्याश्च जैपालबीजशोधनम् ॥
समूलोत्तरवारुण्या बीजं शुध्यति कानकम् ॥

Seeds of nimba (nimboo, according to another text) are purified by the decoction of apamarga. Seeds of shigru, karpasa (cotton), and apamarga are purified only by being dried in the sun. Seeds of aragbadha are purified by the decoction of indrabaruni. Seeds of jayapala (croton) by the decoction of the root of kanya, and the seeds of dhustura by the decoction of uttarabaruni including its roots.

तिक्ता कोषातकी दन्ती पटोली चेन्द्रवारुणी ।
कटुतुम्बी देवदाली काकतुण्डी च शुध्यति ।
धात्रीफलरसेनैवं महाकालस्य शोधनम् ॥
करञ्जयुग्मयोर्बीजं भृङ्गराजेन शोधयेत् ॥

Seeds of katuki, koshataki, danti, patola, indrabaruni, katu-tumbi, deva-dali, white gunja, and mahakala—all of these are purified by the juice of amalaki. Seeds of karanja and karanji (visa-karanja) are purified by the juice of bhringa-raja.

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* निम्बुबीजमिति पाठान्तरम् ।

गुञ्जादिसर्वबीजानां नरमूत्रैः पटुं विना ।
नारिकेलाम्बुना शोध्यं विल्वं भल्लातकं च वै ॥

Gunja and the other seeds are purified by human urine, not mixed with salt. Seeds of vilba and bhallataka are purified by cocoa-nut water.

गुग्गुलुशोधनम् ।

(१)

क्वाथे हि दशमूलस्य चोष्णे प्रक्षिप्य गुग्गुलुम् ।
आलोड्य वस्त्रपूतं तं चण्डातपविशोषितम् ।
घृताक्तं पिण्डितं कुर्याद् यत्नात् तस्य विशुद्धये ॥

(२)

अमृतायाः कषायेण शोधयेद् वापि गुग्गुलुम् ।
दोलायन्त्रे यथाविधि शोषयेदातपे ततः ॥

(३)

दुग्धे वा त्रिफलाक्वाथे दोलायन्त्रविपाचितः ।
वाससा गालितो ग्राह्यः सर्वकर्मसु गुग्गुलुः ॥

Purification of Guggulu.

Guggulu is purified, if it is dissolved with a decoction of dasha-mula, and then filtered through a piece of cloth, and dried in the intense heat of the sun.

(2)

Guggulu my also be purified, if boiled with the decoction of guruchi by Dola Jantram, and then dried in the sun.

(3)

Guggulu may also be purified by being boiled with milk or decoction of triphala by the Dola Jantram.

जलौकाशोधनम् ।

चिरंतनीं जलौकां हि ताम्रपात्रे सुरक्षयेत् ।
चतुर्माषं निशाचूर्णं जलाष्टकपले क्षिपेत् ॥
तस्मिन् क्षिपेत् जलौकां तां स्वयं लालां परित्यजेत् ।
त्यक्तलाला जलौका हि प्रयोज्या रक्तमोक्षणे ॥
कपिला रोमपृष्ठा च रक्तरेखा च दुर्बला ।
वर्जनीया विशेषेण भिषजा कीर्त्तिमिच्छता ॥

Purification of Leeches.

A leech, which is sufficiently old, is to be kept in a copper pot. It is to be immersed in 32 tolas of water, mixed with one fourth of a tola of powdered haridra (turmeric). Thus treated, it will give out its saliva. Purified in this way, the leech may be applied for the purpose of blood-sucking.

A leech of the following description is to be avoided :—

(1) A leech which has got furs on its body, or (2) one which is of tawny colour ; or (3) one which has got red lines on its body ; or (4) one which is weak.

नवमोऽध्यायः ।

अथ तैलपातनम् ।

सामान्येन सर्वबीजानां तैलपातनविधिः ।

(१)

अपक्व * भानुपत्राणां रसमादाय भावयेत् ।
यत्किञ्चिद्‌ बीजचूर्णं च ज्ञातं वा न ज्ञातं च वा ॥
वस्त्रबद्धं ततस्तच्च स्थापयेत् स्थालिकोपरि ।
आतपे मुच्यते तैलमन्यथाऽसाध्यमेव च ॥

CHAPTER IX.

EXTRACTION OF OIL FROM SEEDS OF ANY KIND.

(1)

Any kind of seed, known or unknown, is to be powdered very finely, and subjected to bhavana with the juice of green † leaves of arka. The seed is then to be kept, tightly confined in a piece of cloth, and placed upon a pot in the sun. Oil will come out of the bundle containing the seed.

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* सुपक्व इति पाठान्तरम् ।

† Ripe, according to another text.

(२)

पर्याप्तमात्रबीजानां तैलमाशु विपात्यते ।
तैलकारस्य घूर्णिना यथा सर्वैर्विदृश्यते ॥

(2)

Oil can be extracted from oil-seeds, of sufficient quantity, by means of the well-known machine used by oilmen.

(३)

यत्किञ्चिद्बीजचूर्णाणि वस्त्रपूतानि कारयेत् ।
समूलोत्तरवारुणीक्वाथेन तानि मर्दयेत् ॥
तेनालिप्तं कांस्यपात्रं धारयेदातपे खरे ।
सुतप्तं वस्त्रपूतं च पातितं तैलमाहरेत् ॥

(3)

Seeds of any kind are to be powdered very fine, and sifted through a piece of cloth. They are then to be rubbed with the decoction of uttarabaruni with its roots, and made into a paste with which is to be smeared the internal surface of a bell-metal pot, kept in the intense heat of the sun. Thus heated, the paste will yield oil which is to be filtered by means of a piece of cloth.

(४)

सर्वबीजास्थिमांसानां शुष्काणां पेषणान्मुहुः ।
पातयेद् यत्नतस्तैलं यन्त्रेन पातालाख्यके ⊛ ॥

⊛ द्वितीयखण्डे १२७ पृष्ठे पादटीका द्रष्टव्या ।

(4)

Oil can be extracted by means of the Patala Jantram from all sorts of seeds, bones, and flesh, dried and pounded over and over again.*

(५)

अंकोल्लबीजसंभूतं चूर्णं संमर्द्य काञ्जिकैः ।
एकरात्रोषितं तत् तु पिण्डीकृत्य ततः परम् ॥
स्वेदयेत् कन्दुके यन्त्रे घटिकाद्वितयं ततः ।
तां च पिण्डीं दृढ़े वस्त्रे बद्ध्वा निस्पीड्य काष्ठतः ॥
अधःपात्रस्थितं तैलं समाहृत्य नियोजयेत् ।
एवं कन्दुकयन्त्रेन † सर्वतैलान्युपाहरेत् ॥

(5)

Seeds of ankolla, pestled with kanji, are to be kept one night, and then made into a lump which is to be heated by means of the kanduka Jantram or Swedani Jantram (see page 251, vol. I), for two hours. It is then to be confined tightly in a piece of tough cloth, and pressed by means of a strong piece of wood resulting in the extraction of oil.

Oil can thus be extracted from all sorts of seed.

* See foot-note, page 127, vol. II.

† प्रथमखण्डे २५१ पृष्ठं द्रष्टव्यम् ।

विशेषेण बीजानां तैलपातनविधिः ।

मूलान्युत्तरवारुण्या जर्जरीकृत्य काञ्जिके ।
क्षिपेदंकोल्लबीजानां पेषितं तत्र यत्नतः ॥
तेनालिप्तं कांस्यपात्रं धारयेदातपे खरे ।
सुतप्तं वस्त्रपूतं च स्त्यानं तैलं समाहरेत् ॥

Extraction of oil from seeds, in particular.

Root of uttarabaruni is to be pestled with kanji with which is to be mixed seeds of ankolla, pestled very fine. The whole thing is to be mixed well. The inner surface of a bell-metal pot is to be smeared with this paste and kept in the sun. The thick oil, which will come out of the paste, is to be filtered by means of a fine piece of cloth,

संपेष्योत्तरवारुण्याः पेटकार्या दलान्यथ ।
काञ्जिकेन ततस्तेन कल्केन परिमर्दयेत् ॥
रजश्चाङ्कोल्लबीजानां तद् बद्ध्वा विरलाम्बरे ।
प्रविलम्ब्यातपे तीव्रे तस्याधश्चषकं न्यसेत् ।
तस्मिन् निपतितं तैलमादेयं श्वित्रनाशनम् ॥

Leaves of uttara-baruni and petakari are to be rubbed with kanji and made into a paste. Powdered seeds of ankolla are to be rubbed with this paste, which is then to be confined in a piece of thin cloth and kept hanging in the sun over a pot meant to con-

tain the oil which is to fall, drop by drop, upon it. This oil cures Leucoderma.

यथा धूस्तुरजं तैलं क्वाथाद् घर्मे समुद्धरेत् ।
तथा सर्वत्र तैलानि संग्राह्यान्यौषधान्तरैः ॥
अङ्कोटस्यापि तैलं स्यात् काकतुण्ड्या समूलया ।
वाकुच्या देवदाल्याश्च कर्कोटीमूलतो भवेत् ॥
अपामार्गकषायेण तैलं स्याद् विषतिन्दुजम् ।
मूलक्वाथैः कुमार्यास्तु तैलं जैपालजं भवेत् ॥

Oil can be extracted from the ankota seeds by being rubbed with the decoction of gunja plant with its roots, in the same way as from the seeds of dhustura, rubbed with the decoction of uttara-burani. Oil can similarly be extracted from the seeds of bakuchi and devadali, separately, by being rubbed with the decoction of karkoti; from the seeds of kuchila, being rubbed with the decoction of apamarga; from seeds of jayapala (croton), being rubbed with the decoction of the roots of kanya.

रक्तापामार्गसंक्वाथैर्वाकुचीतैलमाहरेत् ।
क्वाथेन चेन्द्रवारुण्यास्तैलमारग्वधस्य च ॥

In the same way, oil can be extracted from bakuchi seeds, rubbed with the decoction of red apamarga; and from aragbadha seeds, rubbed with the decoction of indrabaruni;

बीजानि कटुतुम्ब्याश्च गोमयेन विलोड़येत् ।
शुष्कं धान्यतुषैः सार्द्धं कुट्टयेत् तदुदूखले ॥
निस्तुषं तं विचूर्ण्याऽथ भृङ्गराजरसैः सह ।
मर्दयित्वातपे तैलं गृह्णीयात् पीड़ने ततः ॥

Seeds of katu-tumbi are to be rolled with cow-dung. When dried, they are to be husked along with dry husks of paddy in a mortar. The seeds are next to be separated from the husks, and pestled with the juice of bhringa-raja. The paste, thus prepared, is next to be heated in the sun, and pressed, confined in a piece ef cloth, so that oil comes out of it.

कृष्णायाः काकतुण्ड्याश्च बीजानि परिचूर्णयेत् ।
कान्तपाषाणचूर्णेण तच्चूर्णं मेलयेत् ततः ॥
धान्यराशौ ततः स्थाप्यमुद्धृते तैलमाहरेत् ।
अपामार्गस्य संक्वाथैरातपे हि यथाविधि ॥

Seeds of black as well as of white gunjas are to be powdered. This powder is to be commingled with powdered load stone, the whole thing being kept inside a heap of paddy for sometime. It is then to be rubbed with the decoction of apamarga, and oil to be extracted from it in the afore-said way.

धात्रीफलरसैर्भाव्यं चूर्णं पाषाणबीजजम् ।
दिनैकं च ततो यत्नात् तैलं ग्राह्यं च घूर्णितः ॥

Powdered seeds of pashana (?) are to be subjected to bhavana with the juice of amalaki for one day, and then oil is to be extracted from them by means of the ghurni machine.

गुञ्जाकरञ्जचूर्णानि नरमूत्रेण भावयेत् ।
सप्तवारं ततो घर्मे लेपयेत् कांस्यभाजनम् ।
उद्धृत्य धारयेद्‌ घर्मे तैलं पतति पीड़नात् ॥

Powdered gunja as well as karanja seeds are to be subjected to bhavana with human urine for seven times. The inner surface of a bell-metal pot is next to be smeared with the paste, thus prepared, and heated for sometime in the sun. The paste is next to be confined in a piece of cloth, heated in the sun, and pressed so that oil comes out of it.

वर्षमानारणालेन पिष्ट्वा चूर्णं विभावयेत् ।
ज्योतिष्मत्युत्थबीजानामातपे तैलमाहरेत् ॥

Powdered seeds of jyotismati are to be pestled with aranala of one year's standing, and subjected to bhavana with the same liquid, The paste is next to be heated in the sun, and oil extracted, as before.

पुत्रंजीवस्य बीजानां चूर्णमगस्तिबीजजम् ।
आम्रातवत् प्रकर्त्तव्यं पात्यं तैलं पृथक् पृथक् ॥

नारिकेलाम्बुना भाव्यं विल्वबीजस्य चूर्णकम्।
दिनैकं तैलयन्त्रेण तैलमाकृष्य योजयेत्॥

Powdered seeds of putranjiba as well as of agasti are to be made into a lump of the shape of amrataka or hog plum (by being rubbed with water or decoction of uttara-baruni), and then pressed, as before, for extractio.. f oil. Powdered seeds of vilba are to be subjected to bhavana with cocoanut water for one day, before oil is extracted from them by means of the oil-machine (ghurni).

निस्तुषं कोलबीजानां मुखं किञ्चिद् विघर्षयेत्।
लेपयेत् कांस्यपात्रे तान् पिष्टचनकलेपनैः॥
तन्मुखे चूर्णटंकणं किञ्चित किञ्चित प्रलेपयेत्।
धारयेदातपे तीव्रे मुखात् तैलं समाहरेत्॥

Mouths of ankola seeds, previously separated from their husks, are to be rubbed a little. Each of them is then to be kept on a bell-metal pot, and smearad all round with chanaka grams made into a paste. The mouth of each of these is to be smeared with a paste made of powdered borax (tankana). All of these seeds are then to be placed in the strong heat of the sun. Oil, coming out of the mouths of these seeds, is then to be collected.

शमीचूर्णं समं पिष्ट्वा छिद्रभाण्डे निवेशयेत्।
छिद्राधः स्थापयेद् भाण्डं छिद्रे केशं च दापयेत्॥

जलेन सेचयेद् द्रव्यं छिद्राधो ग्राहयेच्च तम्।
तन्मध्ये धृतकेशस्य क्षिपेदूर्द्ध्वं पुटं शनैः।
तत् क्षणाद् द्रवरूपं च केशतैलं बहिर्भवेत्॥

Powdered seeds of shami are to be pestled very finely and kept inside a pot having a hole at its bottom. This pot is to be put upon another pot. The hole in the upper pot is to be stopped by means of hair. Some water is to be poured into the upper pot. (The lower part and that part of the upper pot which contains the hair are to be kept in a pit made in the ground). A fire is to be made covering the upper pot, with the result that water will fall, first of all, into the lower pot, followed by oil; (This is only a kind of Patala Jantram).

दशमोऽध्यायः ।

अथ सन्धानवर्गः ।

सन्धानं त्रिविधं ज्ञेयं प्रथमं मदिरान्वितम् ।
द्वितीयं मदिराहीनं भेषजं च निगद्यते ॥
चिरस्थायि भवेद् द्वयं कालेन गुणवत्तरम् ।
अमदिरं तृतीयं तत् स्वल्पकाले विनश्यति ।
तदपि युज्यते गदे गौणतः पीयतेऽपि च ॥

CHAPTER X.

Sandhanas are of three differnt kinds, viz. (1) alcoholic, (2) non-alcoholic but fermented drugs, such as asavas, aristas, etc., and (3) non-alcoholic but fermented drinks, sometimes used as ingredients of medicines (such as kanji).

Of these, the first two are practically everlasting, and increase in quality every day; whereas the third does not last for a very long time.

(१) मदिरं सन्धानम् (मद्यम्) ।

मद्यं बहुविधं प्रोक्तं तन्नाम मदिरा सुरा ।
इरा च कारणं तत्त्वं महानन्दा च माणिका ॥

अमृता माधवी मत्ता मदनी मोदिनी मधु ।
दिव्यपत्यप्रिया चैव कामिनी कपिशी तथा ॥
सुरा बहुविधा ज्ञेया तत्राष्ट प्रथिता भुवि ।
गौड़ी माध्वी तथा पैष्टी कादम्बरी च वारुणी ।
माधूकी चैव मैरेयी मार्द्वीकेति सुराष्टकम् ॥
पक्वापक्वविभेदेन सुरा हि द्विविधा मता ।
तेजोयन्त्रादि * योगेन पक्वा संजायते हि सा ॥

(1) *Alcoholic Liquors* (*wine*).

Wine is of various kinds. Of these, the following eight are well-known :—(*a*) gouri, (*b*) madhvi, (*c*) paisti, (*d*) kadamvari (*e*) varuni, (*f*) madhuki (*g*) maireyi and (*h*) mardi.

Wine may be undistilled as well as distilled. It may be distilled by means of the Tejo-Jantram, Nadika Jantram, Baruni Jantram, and Baka Jantram (see pages 280-85, vol. I).

(क) गौड़ी ।

धातकीगुड़मुख्या या गौड़ी सा मदिरोच्यते ।
तीक्ष्णोष्णा मधुरा गौड़ी वातघ्नी बलपित्तकृत् ।
कान्तितृप्तिकरी पथ्या वह्निकामप्रदीपनी ॥

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* प्रथमखण्डे २८०—८५ पृष्ठानि द्रष्टव्यानि ।

(a) *Gouri.*

Wine, named gouri (from gurh—molasses), is prepared mainly from dhataki flower and gurh. It is acrid, warm, sweet, pacifier of vayu; increaser of strength, pittam, and brightness of complexion. It is agreeable to taste, nutritious, and increaser of power of digestion and sexual desire.

(ख) माध्वी ।

मध्वादिविहिता या तु माध्वी सा मदिरोच्यते ।
नात्युष्णा मधुरा माध्वी पित्तानिलनिसूदनी ।
कामलापाण्डुगुल्मार्शःप्रमेहप्लीहघातिनी ॥

(b) *Madhvi.*

It is made of honey, and other ingredients. It is not very warm. It is sweet, and destroyer of pittam, vayu, jaundice, anemia, gulma, piles, gonorrhœa, and enlargement of the spleen.

(ग) पैष्टी ।

कृता बहुविधैर्धान्यैः पैष्टीति मदिरोच्यते ।
कट्वम्ला कफवातहृत् तीक्ष्णा गौड़ीसमा च सा ॥

(c) *Paisti.*

It is made of paddy of various kinds. It is pungent, sour, destroyer of vayu and kapha, and acrid like gouri.

(घ) कादम्बरी ।

कादम्बरीति विख्याता नानाद्रव्यकदम्बजा ।*
कादम्बरी मधुरा च श्रमपित्तप्रणाशिनी ॥

(d) *Kadamvari.*

Kadambari is prepared from kadamba fruits and many other materials. It is sweet and remover of fatigue and pittam.

(ङ) वारुणी ।

रसः खर्जुरतालयोः संहितो वारुणी मतः ।
तद्रससंधिता सुरा वारुणी चापि कथ्यते ॥

(e) *Varuni.*

It is the fermented juice of date tree and palm tree. Liquor, prepared from other materials with the help of the said juice, is also called varuni.

(च) माधूकी ।

मधूकपुष्पजाता या माधूकी सा निगद्यते ।
माधूकी मादिनी बल्या पुष्टिकृत् कामवर्द्धिनी ॥

(f) *Madhuki.*

It is made of madhuka (mahua) flowers, and is intoxicating, strengthening, nutritious, and increaser of sexual desire.

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* कदम्ब इति कदम्बफलं देवदालीलता वा। कदम्बार्थे बहुद्रव्याणां (पित्तनाशकानामत्र) समुदाय इत्यपि ग्राह्यः ।

(छ) मैरेयी ।

मालूरमूलकं चैव बदरी शर्करा तथा ।
एषामेकत्र सन्धानान् मैरेयी मदिरा मता ॥
मैरेयी वातहृद् बल्या ज्वरघ्नी वह्निदीपनी ॥

(g) *Maireyi.*

It is a liquor prepared by the fermentation of vilba roots, plum fruits, and sugar. It pacifies vayu, cures fever, and increases strength and hunger.

(ज) मार्द्वीकम् ।

मृद्वीकाभिः कृतं मद्यं मार्द्वीकमिति कथ्यते ।
मार्द्वीकमविदाहित्वान् मधुरान्वयतस्तथा ॥
रक्तपित्तेऽपि सततं बुधैर्न प्रतिषिध्यते ।
लघुपाकि सरं नच्च विषमज्वरशोषहृत् ॥

(h) *Mardwika.*

It is wine prepared from grapes. It does not give rise to heat, acidity, and indigestion in the system. It is sweet.

There is no objection, therefore, to its being prescribed even in cases of hemorrhage (which is due to an excess of pittam or heat and vayu causing contraction of the nerves, arteries, etc.) It is light in digestion, laxative, and efficacious in visama jwara (Malaria, kala-zar, etc).

सुरामण्डादि ।

सुरामण्डः प्रसन्ना स्यात् ततः कदम्बजा घना ।
तदधो जगलो ज्ञेयो मेदको जगलाद् घनः ।
वक्कसो * हृतसारः स्यात् सुराबीजं च किण्वकम् ॥

Different parts of undistilled wine.

The upper part of the scum of wine is called prasanna. Kadamvaja is denser than that. That part of the wine which is denser than kadamvaja is called jagala. Medaka is denser than jagala. In other words, Medaka is the densest part of the wine before it is filtered or distilled. The wine from which all its essence has been taken out (by distillation) is called bakkasa, or the seed of wine, or kinvaka.

सामान्येन मद्यानां स्वभावाः ।

मद्यं नवमभिष्यन्दि त्रिदोषजननं सरम् ।
अहृद्यं बृंहणं दाहि दुर्गन्धं विशदं गुरु ॥
जीर्णं तदेव रोचिष्णु क्रिमिश्लेष्मानिलापहम् ।
हृद्यं सुगन्धि गुणवल् लघु स्रोतोविशोधनम् ॥
विविधगुणमण्डितमपि मद्यं परित्यजेत् ।
दोषास्तस्यातिशेरते गुणान् सर्वान् न सन्देहः ॥
भेषजार्थे सुरापानं क्वचित् क्वचिद् विधीयते ।
ग्रहणादानपानेषु साऽन्यथा नैव युज्यते ॥

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* वाखर इति भाषा ।

Properties of wine in general.

New wine causes the discharge of phlegm (through the nostrils, the eyes, etc.). It increases the three doshas and is laxative. It is harmful to the heart, nutritious, and causing inflammation in the system.

It has bad smell, is clear, and heavy. Old wine is increaser of appetite; and destroyer of worms, phlegm, and vayu. It is agreeable to taste and yields a good odour. It is wholesome, light in digestion, and purifier of the internal passages.

In spite of the various merits attending wine, it is to be avoided altogether. Its demerits predominate over its merits. Wine is sometimes prescribed by way of medicine, but otherwise, it is unworthy of drinking, receiving from others, and being given to others.

(२) अमदिरं सन्धानम् ।

सन्धानं मदिराहीनं बहुविधं प्रचक्षते ।
तेषां हि द्वादशं बहुविदितं धरणीतले ॥
आसवारिष्टसीधवः शुक्तधान्याम्लकाञ्जिकम् ।
गुड़शुक्तं तथा चुक्रं तुषाम्बु यवनिर्मितम् ।
सौवीरमारनालं च शिण्डाकी भेषजोचितम् ॥

(2) *Non-alcoholic but fermented Liquids.*

Fermented but non-alcoholic liquids are of various kinds. Of these, the following thirteen are well-known :—(a) asava, (b) arista, (c) sidhu, (d) shukta,

(e) gura-shukta, (f) chukra, (g) tushamboo, (h) dhanyamla, (i) kanji, (j) sauvira, (k) aranala, and (l) shindaki.

All of these are used as ingredients of medicine.

(क) आसव स्तथा (ख) अरिष्टः ।

द्रवेषु चिरकालस्थं द्रव्यं यत् संहितं भवेत् ।
आसवारिष्टभेदैस्तत् प्रोच्यते भेषजोचितम् ॥
यदपक्वौषधाम्बुभ्यां सुसंहितं स आसवः ।
अरिष्टः क्वाथसंहितं तयोर्मानं पलोन्मितम् ॥

(a) *Asava and* (b) *Arista.*

Asava is a fermented liquid prepared from several drugs immersed for a sufficiently long time in water, which does not require any heating and boiling.

Arista is also a fermented liquid, prepared from several drugs, immersed, for a sufficiently long time, in decoction of prescribed drugs.

The dose of both of these is one pala or four tolas (to be taken twice a day).

(The difference between arista and asava is that the former is to be fermented in a decoction of drugs prescribed differently in different cases, whereas the latter is a fermentation in cold water of drugs, prescribed differently in different cases. Both asavas and aristas form a class of important medicines.)

अरिष्टेषु द्रव्याणां परिमाणम् ।

अनुक्तमित्यरिष्टेषु द्रवाद् द्रोणं तुलागुड़म् ॥
क्षौद्रं क्षिपेद् गुड़ादर्द्धं प्रक्षेप्यं दशमांशिकम् ॥

Proportion of materials in an Arista.

Where there is no specific mention of the quantities of the materials to be used in a certain arista, they are to be taken as follows :—The quantity of the decoction (of the materials to be mentioned in each case) is one drona (16 prasthas or 16 × 64 tolas) ; that of gurh is four hundred tolas (or $6\frac{1}{2}$ prasthas); and of honey 200 tolas (or $3\frac{1}{8}$ prasthas); and that of the materials to be kept immersed is one tenth of the gurh (molasses).

(ग) सीधुः ।

स्थापयेद् मृद्घटे नवे कश्चिन् मिष्टद्रवं सुधीः ।
मुखं तस्य पिधातव्यं शरावेण प्रयत्नतः ॥
स्थापयेदातपे तत् तु यावत् तन् नैति संहितिम् ।
अपसार्य शरावं तु द्रवोपर्युत्थितं मलं ॥
मोचयेदन्तरान्तरा पुनर्मुखं च रोधयेत् ।
अनेन संहितं सम्यक् सीध्विति कथ्यते जनैः ॥
सीधु हि द्विविधो ज्ञेयः पक्वश्चापक्व एव च ।
पक्वमिष्टद्रवाज्जातः सीधुर्पक्वो हि कथ्यते ।
अपक्वमधुरद्रवाज् जातश्च शीत एव हि ॥

(c) *Sidhu (a kind of vinegar).*

Keep some sweet liquid in a new earthen vessel, covered with an earthen basin. Place the vessel in the sun every day, till the liquid gets fermented. Take out, every now and then, the dirty scum collected on the surface of the liquid, and then close the mouth of the vessel, as before. When sufficiently fermented in this way, (i,e, when there will be no more scum gathered on the surface of the liquid), the liquid will be called Sidhu.

Sidhu is of two kinds, viz. boiled and unboiled. That which is prepared by fermenting a boiled liquid of sweet taste is called "pakva" or boiled sidhu; and that which is prepared from unboiled liquid of sweet taste is called "apakva" or unboiled sidhu.

(घ) शुक्तम् । *

(२य खण्डे २६ पृष्ठे पादटीका द्रष्टव्या) ।

(d) *Suktam**

(See foot note, page 28, vol. II.)

(ङ) धान्याम्लम् (तुषाम्लम्) ।

प्रस्थं षष्टिकधान्यस्य नीरप्रस्थद्वये क्षिपेत् ।
आधारभाण्डं संरुध्य भूमेर्गर्भे निधापयेत् ॥
पक्षान्ते तत् समुद्धृत्य वस्त्रपूतं च कारयेत् ।
धान्याम्लं कथितं तत् तु तुषाम्लं च तदेव हि ॥

धान्याम्लं शालिचूर्णाच्च कोद्रवादेश्च कारयेत् ।
धान्याम्लं धान्ययोनित्वात् प्रीणनं लघु दीपनम् ।
अरुचौ वातरोगेषु हितमास्थापने च तत् ॥

(e) *Dhanyamla.*

One prastha (64 tolas) of shasti paddy is to be thrown into two prasthas of water, contained in an earthen (or made of chinese clay) vessel, which is to be kept underground with its mouth closed. This is to be taken out after a fortnight, and the liquid is to be filtered. This is called dhanyamla or tushamla.

Dhanyamla may also be prepared from powders of such paddies as shali and kodrava. It is agreeable to taste, light for digestion, and increaser of hunger. It is beneficial in aversion for food, and diseases due to vayu, and commendable for the purpose of being used for douche.

(च) काञ्जिकम् ।

तुलामितं षष्टिकतण्डुलस्य
प्रगृह्य चान्नं विधिवद् विधाय ।
द्रोणेऽम्भसि क्षिप्तमथ प्रयत्नात्
सप्ताहकालं पिहितं हि रक्षेत् ॥
ततस्तु कल्कं सकलं निरस्येत्
तत् काञ्जि तीक्ष्णं लघु पाचनं च ।
दाहज्वरघ्नं कफवातनाशि
रेकी च रुच्यं तथा दीपनं हि ॥

विबन्धशूलानलनाशहृत् तत्
कुल्माष * योगादपि काञ्जि कार्यम् ।
अनन्तरोक्तविधिपूर्वकं हि
जालिः † प्रदेयः खलु काञ्ज्यभावे ॥

(f) *Kanji.*

One tula (400 tolas) in weight of the rice of shasti paddy, duly prepared, is to be immersed in one drona (16 prasthas or 16 × 64 tolas) of water, for seven days, in a vessel closed all the while. The water is then to be filtered. It is called kanji.

It is strong; light; digestive; curer of fever with inflammation, and excess of kapha and vayu; laxative, increaser of liking for food and of appetite; and curer of constipation, colic, and loss of power to digest.

Kanji may also be prepared in the same way from boiled wheat or chanaka, etc.

Jali (water turned sour by boiled rice being immersed in it constantly for a few days) may be used, in lieu of kanji, where the latter is not available.

(छ) गुड़शुक्तम् ।

कन्दमूलफलादिभिः सस्नेहलवणाम्बुभिः ।
गुड़ं यत्राभिषूयन्ते गुड़शुक्तं तदेव हि ।
एवमेवेक्षुशुक्तं स्याद् मृद्वीकासंभवं तथा ॥

* कुल्माष इति अर्द्धस्विन्ना गोधूमाश्चनकादयः ।

† जालिरिति नियताम्रमज्जनजनितमम्लीभूतं जलम् । आमानीति भाषा ।

(g) *Gura-shuktam.*

It is a fermented liquid prepared from water, gurh (molasses), certain tubers, roots, fruits, oil, salt, etc.

Such drinks may also be prepared from the juice of sugar-cane, as well as from the juice of grapes, substituted for gurh.

(ज) चुक्रम् ।

विनष्टमम्लतां यातं मद्यं वा मधुरद्रवः ।
विनष्टः सन्धितो यस्तु तच्चुक्रमभिधीयते ॥

(h) *Chukram.*

Wine, spoiled and grown sour, as well as sweet liquid, fermented, is called chukram.

(झ) तुषाम्बु च (ञ) सौवीरं च ।

तुषाम्बु संहितं ज्ञेयमामैर्विदलितैर्यवैः ।
यवैस्तु निस्तुषैः पक्वैः सौवीरं संहितं भवेत् ॥

(i) *Tushambu and* (j) *Sauvira.*

Tushambu is a liquid, prepared from powdered, unhusked, and unboiled barley, fermented with water only, whereas sauvira is a liquid, prepared from powdered, husked, and boiled barley, fermented with water only.

(ट) आरनालम् ।

आरनालं तु गोधुमैरामैः स्यान्निस्तुषीकृतैः ।
पक्वैर्वा संहितैस्तत्तु सौवीरसदृशं गुणैः ॥

(k) *Aranala.*

It is a liquid, prepared from powdered and husked wheat, boiled or unboiled, and fermented with water only.

It has the same properties as sauvira.

(ठ) शिण्डाकी ।

शिण्डाकी संहिता ज्ञेया मूलकैः सर्षपादिभिः ॥

(l) *Shindaki.*

It is water fermented with mulaka (raddish), mustard seeds, etc.

एकादशोऽध्यायः ।

अथ परिभाषा ।

शुल्वनागः ।

माक्षिकेण हतं ताम्रं दशवारं समुत्थितम् ।
तद्वद्‌ विशुद्धनागं हि द्वितयं तच्चतुष्पलम् ॥
नीलाञ्जनहतं भूयः सप्तवारं समुत्थितम् ।
इति संशुद्धमेतद्धि शुल्वनागं प्रकीर्त्यते ॥
साधितस्तेन सूतेन्द्रो वदने विधृतो नृणाम् ।
निहन्ति मासमात्रेण मेहव्यूहं विशेषतः ॥
पथ्याशनस्य वर्षेण पलितं बलिभिः सह ।
गृध्रदृष्टिर्लसत्पुष्टिः सर्वारोग्यसमन्वितः ॥

CHAPTER XI.

Paribhasa (Definitions.)

sulva-naga.

Copper is to be killed with makshika (pyrites) for ten times and revived each time. Pure lead is also to be similarly treated. Two palas each of these two metals are to be taken and combined. This amalgam is to be killed with nilanjanam for seven times

and revived each time. The amalgam, thus purified, is called, "Sulva-naga" (Copper-lead).

Mercury consolidated with this amalgam, and kept in the mouth, cures all sorts of spermatorrhœa and gonorrhœa in one month only. Keeping it in the mouth for one year, with the observance of salutary diet, makes a man free from senile decay and all sorts of diseases. It improves especially eye-sight and helps all-round development of the body

वरलोहम् ।

ताम्रं तीक्ष्णसमायुक्तं द्रुतं निक्षिप्य भूरिशः ।
सगन्धलकुचद्रावे निर्गतं वरलोहकम् ॥

Vara-loha.

Copper, combined with an equal quantity of tikshna (steel), is to be melted and immersed, for several times, in a solution of sulphur and the sour juice of a lakucha fruit. The amalgam turns, by this process, into an excellent metal.

घोषाकृष्टताम्रम् ।

स्वल्पतालयुतं कांस्यं वंकनालेन ताड़ितम् ।
मुक्तरङ्गं हि तत्ताम्रं घोषाकृष्टमुदाहृतम् ॥

Copper extracted from Bell-metal.

Bell-metal, mixed with a little haritala, is to be subjected to fire blown by a blow pipe. The tin will, in this way, be burnt away, leaving only the

copper. This copper is ghosa-krista (i. e. extracted from bell metai).

वरनागम् ।

तीक्ष्णं नीलाञ्जनोपेतं ध्मातं हि बहुशो दृढम् ।
मृदु कृष्णं द्रुतद्रावं वरनागं तदुच्यते ॥

Bara-naga (Excellent Lead).

Tikshna iron, mixed with nilanjana (see page 202, vol. II), and heated for several times, becomes soft, black, and quickly liquefiab!e. This is called bara-naga (excellent lead).

पतङ्गिरागश्चुल्लकरागश्च ।

पतङ्गिकल्कतो * जातो लोहे तारत्वहेमता ।
दिनानि कतिचित् स्थित्वा यातासौ चुल्लका मता ॥
रञ्जिताद्धि चिरं लोहाद् ध्माताद् वा चिरकालतः ।
विनिर्यासः † स निर्दिष्टः पतङ्गिरागसंज्ञकः ॥

Patangi-raga and chullaka-raga.

The colour of gold which base metals may assume for a short time, by a mercurial preparation being thrown into it, when melted, is called "chullaka"

* पतङ्गिकल्कः इति पतङ्गं पारदः अस्यास्तीति पतङ्गी तस्य कल्कः साधितद्रव्यम् ।

† विनिर्यास इति बहिरागमः ।

colour, whereas the colour of a base metal, permanently transformed into gold or silver is called patangi-raga.

आवापः ।

द्रुते द्रव्यान्तरक्षेपो लोहादौ क्रियते हि यः ।
स आवापः प्रतीवापस्तदेवाच्छादनं मतम् ॥

Abapa.

The act of throwing some thing into a liquefied metal is called "abapa", "pratibapa". or "achchadana".

अभिषेकश्च निर्वापश्च ।

द्रुते वह्निस्थिते लोहे विरम्याष्टनिमेषकम् ।
सलिलस्य परिक्षेपः सोऽभिषेक इति स्मृतः ।
तप्तस्याप्सु विनिक्षेपो निर्वापः स्नपनं च तत् ॥

Abhisheka and nirbapa.

Abhisheka is the act of sprinkling water upon liquefied metal, a few seconds after it is got down from the furnace.

Nirbapa or snapanam is the act of immersing hot metal immediately from fire into water.

शुद्धावर्त्तबीजावर्त्तौ ।

यदा हुताशो दीप्तार्चिः शुक्लोत्थानसमन्वितः ।
शुद्धावर्त्तस्तदा लोहः स कालः सत्त्वनिर्गमे

द्राव्यद्रव्यनिभा ज्वाला दृश्यते धमने यदा ।
द्रावस्योन्मुखता यत्र बीजावर्त्तः स लोहकः ॥
प्रतिवापादिकं कार्यं शुद्धावर्त्ते द्रुते लोहे ॥

Suddhavarta and Vijavarta.

Suddhavarta is that condition of a metal which is so heated by a strong fire that the latter emits white flames. That is the time of essence coming out of the metal.

Vijavarta is that condition of a metal, which, while heated with the object of being melted, makes the fire emit flames of the colour of the metal itself, which shows a heaving tendency at the time.

It is only on a melted and suddhavarta metal that an ābapā is to be resorted to.

स्वाङ्गशीतलं बहिःशीतलं च ।

वह्निस्थमेव शीतं यत् तदुक्तं स्वाङ्गशीतलम् ।
अग्नेराकृष्य शीतं यत् तद् बहिः शीतमीरितम् ॥

Swanga-shitala and Bahis-shitala.

A heated substance is called swanga-shitala, when it is cooled of itself without being removed from the oven.

A heated substance is called bahis-shitala, if it is cooled after removal from the fire place.

अथ रससिद्धाः ।

नन्दिराजस्तथा शुक्राचार्यश्च वसुधागुरुः ।
आदिमश्चन्द्रसेनश्च लङ्केशस्तस्य घातकः ॥
कपाली मत्तमाण्डव्यौ भास्करः शूरसेनकः ।
रत्नकोशश्च शम्भुश्च सात्त्विको नरवाहनः ॥
इन्द्रदो गोमुखश्चैव कम्बलिर्व्याडिरेव च ।
ब्रह्मज्योतिर्मुनिश्रेष्ठः दण्डी च सोमदेवकः ॥
नागार्जुनः सुरानन्दो नागबोधिर्यशोधरः ।
खण्डः कापालिको ब्रह्मा गोविन्दो लम्बको हरिः
मन्थानभैरवश्चैव नित्यनाथश्च वाग्भटः ।
अनन्तदेवसूरिश्च भूदेवो भुवि विश्रुतः ॥
लुप्तप्रायरसज्ञानोद्धारकोऽमृतपाणिकः ।
रसजलनिधिर्येन रच्यतेऽयं सुधानिधिः ।
सन्तरणाय सूरीणां वैद्यनाथप्रसादतः ॥
सप्तत्रिंशदिमे सर्वे रससिद्धाः प्रकीर्त्तिताः ॥

Names of well-known chemists.

Of the innumerable chemists, most of whom have passed into oblivion, the names of the following are still remembered :—(1) king Nandi, (2) Shukra, the sage, (3) Adima, (4) Chandra-sena (5) Ravana (king of Lanka), (6) king Rama-Chandra of Ajodhya.

Kapali, (8) Matta, (9) Mandavya, (10) Bhaskara, (11) Sura-sena, (12) Ratna-kosha, (13) Shambhu, (14) Satwika, (15) Nara-bahana, (16) Indrada, (17) Gomukha, (18) Kambali, (19) Vyari, (20) Brahma-jyoti, (21) Dandi, (22) Soma-deva, (23) Nagarjuna, (24) Surananda, (25) Nagabodhi, (26) Jasodhara, (27) Khanda, (28) Kapalika, (29) Brahma, (30) Govinda, (31) Lambaka, (32) Hari, (33) Manthana-Bhairava, (34) Nityanatha, (35) Bagbhata, (36) Ananta deva, and (37) Bhudeva (the author.)

त्वद्दत्तद्रव्यसभारस्तदंघ्रावर्पितो मया ।
त्वदिच्छाचालितस्य मे ममत्वं क्व महेश्वरि ॥

इति सिद्धवैद्यश्रीभूदेवदेवशर्मविरचितरसजलनिधिनाम-
महाग्रन्थस्य तृतीयखण्डं समाप्तम् ।